

Raymond R. Wile
1976.

United States Patent Office.

Leon F. Douglass)	Interference No.
)	20,090
versus)	Subject-matter:
)	Sound Records
Thomas H. Macdonald)	

TESTIMONY ON BEHALF OF MACDONALD

Copied from copy found in
American Graphophone Co. vs.
Leon F. Douglass. In FRC -
Archives Section -- Chicago
(RG 21)

IN THE
United States Patent Office.

INTERFERENCE No. 20,090.

by
LEON F. DOUGLASS

vs.

THOMAS H. MACDONALD.

Subject-matter: SOUND RECORDS.

TESTIMONY ON BE HALF OF MACDONALD.

FILED

APR 12 1900

PHILIP MAURO,
Counsel for Macdonald.

E. M. Lumb
CLERK

DEPARTMENT OF THE INTERIOR,
United States Patent Office.

J. H. D. WASHINGTON, D. C., *July 1, 1899.*
THOMAS H. MACDONALD,
Care Philip Mauro, Interference No. 20,090.
City.

Please find below a copy of a communication from the Examiner concerning your application for Recording and Reproducing, filed Dec. 5, 1898, serial number 698,328.

Very respectfully,

Room No. 219.
All communications should be addressed to
"The Commissioner of Patents,
Washington, D. C."

C. H. DUELL,
Commissioner of Patents.

Your case, above referred to, is adjudged to interfere with others, hereafter specified, and the question of priority will be determined in conformity with the Rules.

The statement demanded by Rule 110 must be sealed up and filed on or before the 10th day of July, 1899, with the subject of the invention, and name of party filing it, indorsed on the envelope. The interference number should also be indorsed thereon. The subject-matter involved in the interference is

The method of forming a sound record which consists in placing a vibratory cutting style in contact with a tablet, causing said style to vibrate in a plane approximately perpendicular to the surface of the tablet by impressing sonorous vibrations thereon, and simultaneously moving said tablet at such a speed that sounds requiring one minute in their production form a record approximately forty-four meters in length.

This is your claim 3 and interferes with claim 7 of an application of Leon F. Douglass, of Chicago, Ill., whose attys. of record are Munday, Evarts & Adcock, Marquette Block, Chicago, Ill.

In case of an adverse decision in this interference proceedings, all the claims in this case will probably be rejected.

IN THE UNITED STATES PATENT OFFICE.

Interference No. 20,090, between application of THOMAS H. MACDONALD No. 698,328, filed Dec. 5th, 1898, and an application of LEON F. DOUGLASS.

Preliminary Statement of Thos. H. Macdonald.

COUNTY OF FAIRFIELD, } ss:
State of Connecticut, }

THOMAS H. MACDONALD, being duly sworn, deposes and says:

I am the applicant in the above-entitled application, No. 698,328, filed December 5th, 1898.

I first conceived the invention set forth in the declaration of interference in November, 1897, and in that and the following month devoted much thought and study to the subject. In January, 1898, I designed and had drawings made of a machine intended to embody the conception of high surface speed in making sound-records. I disclosed my ideas, as far as they had developed at that time, and discussed them with others; in November and December of the year 1897.

During the early part of the year 1898 the work on this

experimental machine proceeded to the point of having patterns made; but before its completion the idea of increased speed became more prominent in my mind, and assumed greater importance than the other ideas embodied in said machine. I therefore left said machine incomplete and, continuing my investigations during the summer of 1898, I determined upon a different design in the month of July, 1898. At this date I conceived the definite design, proportions and mode of operation of the machine which later came into use and which is known as the "Graphophone Grand". I made sketches and drawings thereof and disclosed it to others in July and August, 1898, and began the construction of the first machine of this type about August 10, 1898.

The work of construction was carried on diligently and the first machine was completed and tested about the first of October, 1898, and from that time forward was exhibited to a number of persons. All the above work occurred at the factory of the American Graphophone Company, at Bridgeport, Connecticut.

On October 18, 1898, I exhibited the machine to Leon F. Douglass, of Chicago, Ill., who, I understand, is the other party to this interference. Said Douglass discussed the machine with me and others at length, inquired as to the principles upon which it was based and by which its remarkable results were obtained, and received from me an explanation of them.

I made no model, as distinguished from the full sized machine above referred to, and from which subsequent machines made for the market were patterned. The manufacture of commercial machines of this type began immediately (that is, in October, 1898,) and many hundred machines embodying the invention in issue have been made and sold by my assignee, the American Graphophone Company. A

number of machines were sold in advance of completion, the first deliveries to purchasers being in December, 1898.

THOMAS H. MACDONALD.

Sworn to and subscribed before me this 6th day of July, 1899.

[NOTARIAL SEAL.]

W. R. MILLER,
Notary Public.

IN THE UNITED STATES PATENT OFFICE.

Interference No. 20,090, between application of THOMAS H. MACDONALD, No. 698,328, filed December 5, 1898, and an application of LEON F. DOUGLASS.

Amended Preliminary Statement of Thos. H. Macdonald.

} ss:

THOMAS H. MACDONALD, being duly sworn, deposes and says: I am the applicant in the above-entitled application, No. 698,328, filed December 5, 1898.

I first conceived the invention set forth in the declaration of interference in November, 1897, and in that and the following month devoted much thought and study to the subject. In January, 1898, I designed and had drawings made of a machine intended to embody the conception along with other ideas. I disclosed my ideas and discussed them with others, in November and December of the year 1897.

During the early part of the year 1898, the work on this experimental machine proceeded to the point of having patterns made; but before its completion the idea of increased speed became more prominent in my mind, and assumed

greater importance than the other ideas embodied in said machine. I therefore left said machine incomplete, and, continuing my investigations during the summer of 1898, I determined upon a different design in the month of July, 1898. At this date I conceived the definite design, proportions and mode of operation of the machine, which later came into use and which is known as the "Graphophone GRAND," and which embodied the invention defined in the claims of my said application, and in the declaration of interference. I made sketches and drawings thereof and disclosed it to others in July and August, 1898, and began the construction of the first machine of this type about August 10, 1898.

The work of construction was carried on diligently and the first machine, embodying fully the invention in issue, was completed and tested about the first of October, 1898, and from that time forward was exhibited to a number of persons. All the above work occurred at the factory of the American Graphophone Company, at Bridgeport, Connecticut.

On October 18, 1898, I exhibited the said machine to Leon F. Douglass, of Chicago, Ill., who, I understand, is the other party to this interference. Said Douglass discussed the machine with me and others at length, inquired as to the principles upon which it was based and by which its remarkable results were obtained, and received from me an explanation of them.

I made no model, as distinguished from the full sized machine above referred to, and from which subsequent machines made for the market were patterned. The manufacture of commercial machines of this type began immediately (that is in October, 1898) and many hundred machines, embodying the invention in issue, have been made and sold by my assignee, the AMERICAN GRAPHOPHONE COMPANY. A number of machines were sold in

advance of completion, the first deliveries to purchasers being in December, 1898.

THOMAS H. MACDONALD.

Sworn to and subscribed before me this 12th day of July, 1899.

W. R. MILLER,
Notary Public.

[SEAL.]

IN THE UNITED STATES PATENT OFFICE.

LEON F. DOUGLASS
vs.
THOMAS H. MACDONALD. } Interference No. 20,090.

Depositions of witnesses taken on behalf of Thomas H. Macdonald, pursuant to the annexed notice, at the factory of the American Graphophone Company, Bridgeport, Conn., beginning Thursday, January 18, 1900, at 1 o'clock in the afternoon, before William R. Miller, a notary public, in and for the county of Fairfield, Connecticut.

Present: PHILIP MAURO, Esq., on behalf of THOMAS H. MACDONALD, and EDMUND ADCOCK, Esq., on behalf of LEON F. DOUGLASS, Mr. DOUGLASS also being present in person. And thereupon

THOMAS H. MACDONALD.

THOMAS H. MACDONALD, a witness produced on his own behalf, being first duly sworn, deposes and says, in answer to questions by Mr. MAURO, as follows:

Question 1. State your name, age, residence and occupation?

Answer. Thomas H. Macdonald; 40 years; Bridgeport, Conn.; manager Factory American Graphophone Company.

Q. 2. Are you the same Thomas H. Macdonald whose application for patent, filed December 5, 1898, Serial No. 698,328, is involved in this interference?

A. I am.

Q. 3. How long have you been a factory manager of the American Graphophone Company?

A. Since August, 1892.

Q. 4. During the period that you have been factory manager who has designed and determined the construction of the different machines and appliances which the American Graphophone Company has introduced and manufactured?

A. I have designed practically all of them; everything except a few of the minor appliances, and nothing has been used or manufactured except by my sanction.

Q. 5. Claim 3 of your application in interference, and which is the subject-matter of the interference, reads as follows:

"The method of forming a sound record which consists in placing a vibratory cutting style in contact with a tablet, causing said style to vibrate in a plane approximately perpendicular to the surface of the tablet by impressing sonorous vibrations thereon, and simultaneously moving said tablet at such a speed that sounds requiring 1 minute in their production form a record approximately 44 meters in length."

Did you ever construct a machine for carrying out that operation?

A. I did.

Q. 6. When did you begin to make drawings for the construction of said machine and when were the drawings complete?

A. Drawings were begun about the middle of July, 1898, and were completed on the 12th day of August, 1898.

The construction of the machine or parts of the machine was begun before the completion of the drawings, probably about the 1st of August, 1898.

Q. 7. When was the first machine of that type complete?

A. As near as I can recollect about the middle of September, 1898.

Q. 8. Have you in your possession the original drawing which were followed in the construction of that machine? and if so, please produce it.

A. I have such drawing now in my possession, and produce it.

(The witness produces a pencil drawing and a blue-print, which are offered in evidence, to be marked, respectively, as follows: "Macdonald Exhibit, Pencil Drawing," and "Macdonald Exhibit, Blue Print Drawing.")

Q. 9. What difference is there between these two drawings, and state whether both were used in making the first machine?

A. The blue-print is made from the tracing made from the pencil drawing, and differs only that a number of the dimensions of various parts of the machine were written in on the tracing. The pencil drawing and the blue-print were both used by the workmen in constructing the first machine.

Q. 10. What are the dimensions of the mandrel shown in the drawings?

A. The exact dimensions of the mandrel are not marked in the drawing, but it was of such a size made on the standard taper as to carry a five-inch cylinder, outside diameter.

Q. 11. Have you in your possession the first machine built of this type; and if so, please produce it?

A. I have.

(Mr. MAURO: The machine produced by witness is offered in evidence, to be marked "Macdonald Exhibit, First Graphophone Grand.")

Q. 12. When did you first operate that machine by making and reproducing sound records thereon?

A. As near as I can fix the time, somewhere between the 15th and 20th of September, 1898.

(Mr. ADCOCK: The answer of the witness to the last question, and also the preceding question, is objected to in so far as they are in variance with Mr. Macdonald's preliminary statement.)

Q. 13. At what speed or number of revolutions of the mandrel shaft did you run the machine in making the first sound records thereon?

A. About 115 to 120 revolutions per minute.

Q. 14. Did you make any experiments at different speeds in order to determine that at which the machine should be operated; and if so, state what you did in that connection?

A. I made but few tests with the Graphophone Grand in that direction, but made a number of tests with the ordinary Graphophone, before building the Grand.

Q. 15. Please state what results you observed with reference to the effect of increasing surface speed of the recording tablet?

A. I increased the ordinary surface speed of the Graphophone cylinder, which is in the neighborhood of 750 inches per minute, to a speed of perhaps a thousand inches per minute, which would be roughly a revolution of the cylinder in the neighborhood of 160 or 170 revolutions. I then increased it to about double the ordinary speed. I then

increased the speed to a number of points, running up to probably six times the ordinary speed of a Graphophone, which is 120 revolutions per minute.

The results I found were an increase in the clearness and volume of reproduction, but it was not a general or gradual increase of volume or quality keeping pace with the increase of speed. I found not much improvement in the record up to a point of a thousand or 1,200 inches per minute. From that point to about 1,600, 1,700 or 1,800 per minute, I found the increase in quality and loudness to be rapid; but beyond this point, the increase became small, so that at a speed of six times the ordinary Graphophone speed, there was not much notable gain over the speed that I finally adopted for the Graphophone Grand, which is, as stated in the application for patent, about 44 meters a minute. These experiments and investigations determined the size of the Graphophone Grand cylinder. My object being to get a cylinder that would revolve at the same number of revolutions per minute as the ordinary Graphophone, so that I might use the motors, both spring and electric, which were then in existence.

Q. 16. Do you remember a visit made to the factory of the American Graphophone Company by Mr. L. F. Douglass and Mr. Henry Babson, in the fall of 1898?

A. I do.

Q. 17. Do you remember showing and exhibiting the Graphophone Grand to them?

A. I do.

Q. 18. Was that the machine which has been offered as an Exhibit in this case?

A. It is.

Q. 19. Please state briefly what preceded and led to the exhibition of that machine to Messrs. Douglass and Babson?

A. Mr. Douglass and Mr. Babson came to the factory

with Mr. Easton and Mr. Devine on the 18th of October, 1898, bringing with them the polyphone, fitted for a graphophone. Mr. Easton came to my office shortly after their arrival at the factory and entered into a discussion with me in regard to the merits of the polyphone. I was not impressed with the value of the device, and told Mr. Easton that if he was thinking of the loudness of a record, I had a machine that I had completed but a short time before which would give a reproduction vastly better, both in regard to volume and quality, than the polyphone. Mr. Easton was interested, of course, and desired to see the machine at once. I then brought out the Graphophone Grand, and it was the first time Mr. Easton had ever seen the machine exhibited. He had seen the machine in the course of construction in the laboratory but had never heard a reproduction. I made a talking record from the machine and immediately reproduced it. I also sent for Mr. J. J. Fisher, a singer for Graphophone records, had him make a short singing record upon the machine and reproduced that for Mr. Easton. He was very greatly impressed by the exhibition. After listening to the machine several times the suggestion was made by Mr. Easton that the machine should be shown to Mr. Douglass, Mr. Babson and Mr. Devine who were then in another part of the factory. This was accordingly done. Before Mr. Douglass, Mr. Babson and Mr. Devine were brought into the room Mr. Easton I think suggested that to make the effect more startling or more striking, the machine should be covered with a piece of paper, and I did so.

Q. 20. State who was in the room at the time the exhibition took place in the presence of Mr. Douglass and Mr. Babson.

A. Mr. E. D. Easton, Mr. Andrew Devine, Mr. Walter P. Philips, Mr. J. J. Fisher, and myself.

Q. 21. Of these persons, who were in the room already, and who entered with Mr. Douglass and Mr. Babson?

A. Mr. Easton, Mr. Fisher and myself were in the room, and Mr. Philips and Mr. Devine entered about the same time—I think came in together with Mr. Babson and Mr. Douglass.

Q. 22. In what room did that exhibition take place?

A. In the room in which we now are.

Q. 23. What are the dimensions of this room?


A. The exact dimensions are 21 feet 8 inches long and about 14 feet wide. The exact dimensions I have made are 21 feet 8 inches long and 14 feet nine inches wide.

Q. 24. Have you in your possession a diagram of the room; and if so, please produce it?

A. I have.

(The drawing produced by the witness is offered in evidence, to be marked: "Macdonald Exhibit, Diagram of Manager's Office.")

Q. 25. On this diagram are certain marks and names. Please state, if you know, who placed them there, and what they indicate?

A. I have made a cross within a circle for the position occupied by each of the persons present, at the time of the exhibition of the Graphophone Grand on October 18, 1898, and have marked them with the names of the various persons present. These positions are as  as I can now locate them, and are to the best of my recollection substantially correct.

Q. 26. At the conclusion of the exhibition to these gentlemen how far was Mr. Douglass from you and how far was Mr. Easton from you?

A. Mr. Douglass was about 10 feet from me, and Mr. Easton about six or seven feet at right angles from the posi-

tion which Mr. Douglass occupied. This I estimate to the best of my recollection.

Q. 27. What are the acoustical properties of this room?

A. I consider them very good.

Q. 28. Of what materials are the walls, the ceilings?

A. The walls are tongued and grooved, pine plank, the ceiling is of planking covered with asbestos.

Q. 29. Were you in a position to hear any conversation that may have taken place between Mr. Easton and Mr. Douglass?

A. I was.

Q. 30. Did the machine remain covered during the presence of Mr. Douglass and Mr. Babson?

A. It remained covered during the exhibition of the machine. At the close of the exhibition I removed the paper.

Q. 31. Did you remove it intentionally or accidentally?

A. I removed it intentionally; it was necessary to remove the horn from the machine to do it, as I had made a hole in the paper to put the horn through it.

Q. 32. If any conversation occurred at that time, state what you remember of it?

A. There was conversation among a number of the people. There was a great deal of amazement at the loudness of the record, the volume and quality, expressed by Mr. Babson, Mr. Douglass, also Mr. Devine. Mr. Douglass made the remark, the substance of which was, that this was the finish of the polyphone or the eclipse of the polyphone, or something of that nature; his exact words I cannot recall. This remark was made, I think, before the paper was removed. After the paper was removed, I recollect Mr. Douglass asked me why I had weighted the reproducer; also if it were an ordinary Graphophone reproducer that I was using. I replied that it was an ordi-

nary Graphophone reproducer, but that it was necessary to add considerable weight to the ordinary form, on account of the loudness of the record, and also, I believe, on account of the higher surface speed, tending to throw the reproducer from the cylinder, especially on the higher and louder vibrations. I think the question was also asked, whether by Mr. Douglass, Mr. Babson or Mr. Devine I could not recall, as to whether we used an ordinary recorder or a special one. I replied that we were then using an ordinary recorder for the machine, or what has been known in the music making business as the Macdonald recorder, which at that time had just been placed on the market, and was a slight modification of the recorder I had patented in 1894. There were a number of other questions asked in regard to the making of records and reproducing such records, but I can't recall anything of their substance just now.

Q. 33. Did you hear Mr. Easton remark, "isn't it funny that Mr. Douglass was telling us of this same thing on the train coming here" or any words to that effect?

A. I did not.

Q. 34. Did you hear Mr. Douglass remark, "I knew it would do it, for I had tried it before," or any words of similar import?

A. I did not.

Q. 35. In his talk with you on that occasion did Mr. Douglass intimate that he had done or thought of the same thing before?

A. He did not.

Q. 36. Had Mr. Easton ever before that time suggested to you to use a large blank?

A. He never did.

Q. 37. Is the invention described and claimed in your application for patent involved in this interference your own original invention?

A. It is.

Q. 38. Was it or any part of it ever suggested to you by any one else?

A. No part of it was ever suggested to me by any one else?

Q. 39. Do you remember signing in March last a statement with reference to the events which occurred on the 18th of October, 1898, and is this the statement which I now show you?

A. I recollect signing this statement. This is the statement.

Q. 40. Are the statements there made so far as they relate to the events of October 18, 1898, true?

A. They are substantially true.

Q. 41. Do you know when you signed that statement?

A. I do not recall the exact date.

Q. 42. Give it as near as you can please?

A. It was sometime I think in last March.

(The statement referred to is offered in evidence, to be marked "Macdonald's Exhibit Macdonald's Statement March 18, 1899.")

(Mr. ADCOCK: The statement offered as an exhibit is objected to, as incompetent, immaterial and not the best evidence.)

Q. 43. Have you ever in the use of ordinary talking machines, made sound records at the various speeds at which such machines were capable of operating, or have you known of this being done by others, and if so, state the facts within your knowledge?

(Question objected to as incompetent, immaterial and irrelevant, and inadmissible.)

A. I have made such experiments many times, both on Graphophones and Phonographs. I have known of other records being made and so made at a speed of about 150 to 160 revolutions per minute on a Phonograph, as early as 1890, by the New England Phonograph Co., in Boston. They were made for exhibitors' use upon a treadle Phonograph, as the exhibitor found he could make his treadle governor work better if he ran it at a high speed. I was present on one occasion in the rooms of the New England Phonograph Company in Boston when such records were made, or when such records were instructed to be made for a particular exhibitor, who requested that they be made at exactly 150 revolutions per minute. He was charged, I think double price for them. He gave as his reason for this, that he had his governor treadle set for this speed, and could not easily change it. Such experiments have been made here in the factory by a number of our people in times past. I do not recall now any specific instance when such an experiment was made, but speak from the general knowledge of the subject.

Q. 44. You have stated that you designed the various types of Graphophones that have been manufactured by the American Graphophone Company, and placed on the market since 1892?

A. I have.

Q. 45. Did you determine all the parts and proportions of such machine, and their governable speed capacities?

(Same objection.)

A. I have.

Q. 46. What is the maximum speed capacity of the Type U Graphophone?

A. About 180 revolutions per minute.

Q. 47. What is the maximum speed capacity of Type K Graphophone?

A. Just the same; it is the same machine, except the paring knife is added to the U machine, which is known as Type K.

Q. 48. What was the maximum speed capacity of Type C, running with an electric motor?

A. About 190—some of them might possibly run 200. I never have found a machine that would run up to a speed of 200 revolutions and govern, but it is possible that such a machine might have been sent out.

Q. 49. What happens in making a sound record if the speed of the machine is forced beyond the capacity of the governor?

A. The record is irregular, false; the reproduction of a record depending upon the uniform speed or uniform rotation of the cylinder. As soon as the governor ceases to control the machine the mandrel which carries the cylinder runs irregularly, now fast, now slow, and the record is destroyed as far as its reproduction is concerned, or rather faithful reproduction is concerned, from the fact that the pitch will vary so greatly as to produce sounds that cannot be called actual representations of the original—in fact they are very inaccurate. A variation of speed is much more noticeable in a musical record than in a talking record.

Q. 50. If a sound record were made, at a speed beyond the limits of the governor, would that fact be evident on the reproduction thereof, presuming it to be a musical record?

A. I have no doubt but that it would be very evident.

Q. 51. Were you present in Chicago on or about December 7, 1899, at the office of the Polyphone Company, when some tests were made of a sound record, known in this case as "Douglass Exhibit, 1897, Sound Record"?

A. I was present.

Q. 52. Did you do anything to ascertain the approximate

speed at which that record was made; and if so, state what you did?

A. Mr. Douglass placed the record upon a Phonograph which I think was running about the ordinary speed; that is, 120 revolutions per minute. The record was very slow, low pitched, and was evidently made at a higher speed. I increased the speed of the machine, and asked Mr. Douglass if the record sounded more natural; and finally reached a point where Mr. Douglass told me that is about right, about natural. I then carefully timed the number of revolutions of the cylinder, using a stop watch, and found them to be about 176 revolutions per minute. Mr. Munday who was also timing the revolutions with his watch in his hand called it 180 revolutions per minute. The reproduction was that of a song "I Love You in the Same Old Way," and sounded to me about such a tone as I would expect in a reproduction of a Graphophone or Phonograph of that song. I then increased the speed of the machine to the limit of the Phonograph, and found that it was running at about 195 to 200 revolutions per minute, when the record sounded falsetto, and made the impression upon my mind that it was running entirely too fast; so much so that if I were exhibiting the record I would diminish the speed of the machine. My opinion is that that record was made at a speed somewhere between 175 and 185 revolutions per minute.

Q. 53. In making that test what character of voice did you assume the singer to have?

A. I should call it a baritone, perhaps what might be called in the talking machine business, a high baritone, somewhere between a baritone voice and a tenor.

Q. 54. And at the time the machine was running at about 176 revolutions per minute was the pitch of the song

made to approximate to what you would call a high baritone?

A. I recollect that it was.

Q. 55. Did you make a memorandum while in Chicago of what happened at that time, and if so, please produce it?

(Objected to as incompetent, irrelevant, immaterial and inadmissible.)

A. I made such a memorandum at that time.

Q. 56. Please read it.

(Same objection.)

A. "CHICAGO, December 8, 1899.
Minutes of test of 'Sound Records known as Douglass Exhibit Sound Record, 1897,' made by the undersigned in company with Mr. Philip Mauro, Mr. Andrew Devine, Mr. Munday, Mr. Adecock, Mr. Smith and Mr. Douglass. The record was produced and submitted by the Magistrate in the case at issue, *i. e.*, Macdonald *vs.* Douglass, Patent Interference. The record was placed upon a machine, a Phonograph, Type M, which Mr. Douglass stated was running at normal commercial speed, that is 120 revolutions of the mandrel per minute. At this speed the record sounded low and indistinct. Mr. Douglass then increased the speed. I timed the revolutions on a mandrel, using a stop watch. Mr. Munday also timed them, using an ordinary watch. The speed was then about 160 revolutions per minute. I then raised the speed of the machine slowly, first asking Mr. Douglass the quality of voice possessed by Mr. Ford, the reputed maker of the record 'I Love You in the Same Old Way' which we were testing. Mr. Douglass replied that he thought he was a high tenor. I continued to raise the speed of the machine till the sound of the record seemed natural. I then asked Mr. Douglass if that sounded like Mr. Ford's voice and if the speed of the machine was about right. He replied that it was. I then counted 43 revolutions in 15 seconds, or a speed of 172 per

minute. Mr. Munday, counsel for Mr. Douglass, timed the same, and made it 180 per minute. I timed it three times and found at no time according to my reckoning to exceed 176 revolutions per minute. I then raised the speed to the limit of the machine, about 192 revolutions per minute. At this speed the voice sounded unnatural, being high, shrill, and falsetto, clearly a higher pitch than that at which the record was made. The condition of the record was fair. It did not show excessive wear, nor was the "scratch" particularly prominent. Viewed from a commercial standpoint the record was not, and never was, a good one. It was not loud, nor was there any improvement in clearness or quality over the ordinary records of its size, sold in the open market. Indeed it compared unfavorably in the above mentioned requisites of loudness, quality and clearness with an ordinary duplicate of the same selection taken at random from stock and placed on and reproduced from the same machine, immediately after the conclusion of the test.

(Signed) T. H. MACDONALD,
Auditorium Hotel Annex,
December 8, 1899."

And I have added here: "N. B. The test was made at the office of the Talking Machine Company, 107 Madison street."

Q. 57. Who wrote that statement, and when was it written?

(Same objection.)

A. I wrote the statement in the Auditorium Annex on December 8, 1899.

(The paper which the witness has just read is offered in evidence, to be marked "Macdonald's Exhibit Memorandum of December 8, 1899.")

(Same objection..)

Q. 58. You have spoken in that statement of the

"scratch" showing on a record. Please explain what this means?

(Same objection.)

A. By "scratch" we refer to the false sound heard in a reproduction of a record caused by the friction of the reproducer point dragging on the surface of the cylinder—the rougher the surface of the cylinder the more intense the scratch or scraping or hissing sound. Records that have been much used are specially prominent in "scratch." All old records—old in the sense of having been used a great deal—are denominated scratchy. As a rule, the reproduction is much impaired by the "scratch."

Q. 59. How does that record compare with the ordinary commercial product of the fall of 1897, in volume and quality?

A. Well, I should class that as a fair record, for an original, in the matter of scratch, I think it compares favorably. I do not consider it to be more scratchy than the ordinary commercial record. It is not such a record, I think, as would strike the listener as being something out of the ordinary.

Q. 60. In your opinion was that record at the time it was made a particularly loud one, comparing it with the ordinary records of its size, and give any reason you have for the opinion you may express?

A. I would not class that as having ever been a particularly loud record. The wear upon records does not materially diminish the loudness. It increases the scratch, the fainter parts first disappear, but the stronger, fuller tones will remain almost as loud when the record becomes unusable, commercially speaking, as when first made. There is another point in the record which I noticed, that is the dictation, the announcement which it is usually called, pre-

ceding the song. This sounded natural when we reproduced it, and did not show signs of excessive wear, neither did the piano accompaniment, and from that I conclude that the record at no time of its existence was materially louder than what I heard.

Q. 61. When were arrangements made for the manufacture of Graphophone Grands for sale?

A. Mr. Easton instructed me to proceed with the making of this machine immediately upon his return to New York. He called me on the telephone and we had a conversation of some length, urged that we proceed with the greatest possible dispatch to manufacture this machine.

Q. 62. Did you do so?

A. We did so.

Q. 63. Do you remember when sales were first made, or orders received for machines of that type?

A. I don't know when the first orders were received. The first shipments were made on the 17th of December, 1898. There were six machines completed. One was sent to the Columbia Phonograph Co.'s Office in Paris, one was delivered to the Columbia Phonograph Company's Office in Philadelphia, and four were sold to F. M. Prescott, of New York, and shipped to his order. It is possible they were not all shipped on the 17th; they were all shipped certainly before the 21st; the orders were received on the 17th.

Q. 64. When did the so-called Edison Concert Phonograph make its appearance on the market?

A. The first one I saw was in the following May, 1899, I think.

Q. 65. Did you, some years ago, make a machine for using flat disk shaped tablets?

A. I did.

Q. 66. When was that machine made?

A. In February, 1894.

(The two preceding questions and answers objected to as incompetent and inadmissible, and contrary to the witness' preliminary statement if it is attempted to carry the witness' dates back of those given in the preliminary statement.)

Q. 67. Give a brief description of that machine?

(Same objection.)

A. This machine was provided with a spring motor, enclosed in an oblong case about 8 inches long, 4 inches wide, and $2\frac{1}{2}$ or 3 inches high. At one end of this case an upright journal projected on which was placed a disk of metal about 5 inches in diameter. On the other end of the case was a projection which carried a reproducer holder. The underside of the metal disk was cut to a spiral groove, 100 to the inch. An arm extended from the reproducer holder underneath the disk to a point directly underneath the reproducer, and so arranged as to engage its spiral groove mentioned; when the machine was operated this spiral groove would feed the arm forward, thus causing the reproducer or recorder to trace the spiral upon the wax disk record, which was placed on top of the metal disk, of the same pitch as that mentioned, namely, 100 to the inch.

Q. 68. Did you make more than one machine at that time?

(Same objection.)

A. I did not.

Q. 69. Did that machine remain in your possession; if not, state what became of it?

(Same objection.)

A. During the spring and summer of 1894 I made a number of records upon this machine; in one case employing a metal band for the purpose of making band records upon it. In July or August, the machine was taken to New York and exhibited at the Waldorf Hotel, and afterwards sent to the Columbia Phonograph Co.'s office in Washington, immediately after the exhibition, and has never been returned to me or to the factory.

Q. 70. Was this machine ever shown to Mr. L. F. Douglass, as far as you know?

(Same objection.)

A. It was.

Q. 71. Was Mr. Douglass a visitor at the factory during the year 1894?

(Same objection.)

A. He was.

Q. 72. How frequently?

A. Well, I should say he came two or three times, possibly more. He usually came with Mr. Easton.

Q. 73. Did he have free access at those times to all parts of the factory?

A. He did. He accompanied Mr. Easton in his visits to the factory and to the various departments of the factory.

Q. 74. You have stated that the disk machine referred to was made in February, 1894?

A. It was.

Q. 75. How did you fix that date?

(Objected to as incompetent and inadmissible.)

A. I fixed the date by the drawings—the rough drawing which I made at that time of the construction of the machine.

Q. 76. Please produce the drawing referred to?

(Same objection.)

(The drawing is produced and offered in evidence, to be marked "Macdonald Exhibit Disk Graphophone.")

(Same objection.)

Q. 77. This drawing has written on it the words and figures, "Toy Graphophone, T. H. Macdonald, designer and inventor, February 3, 1894." Who wrote those words on the drawing, and when?

(Same objection.)

A. I wrote them on the date given, February 3, 1894.

Q. 78. If the disk machine made from that drawing was shown to any one in the early part of 1894, please name some of the persons who saw it?

(Same objection.)

A. It was shown to Mr. Bettini, Mr. D'Ancona, Mr. Clephane, Mr. Easton, Mr. Cromelin, Mr. Douglass, Mr. George Lyle and Mr. Mervin Lyle, and I think all of the employes in the offices of the Columbia Phonograph Company in New York at that time, and was afterwards sent to the Columbia Phonograph Company's office in Washington.

Q. 79. How many threads to the inch has the record made on the Type C and on the Columbia Graphophones?

A. One hundred threads to the inch.

Q. 80. Is that a standard construction, and if so to what extent is it followed?

A. That is the standard construction and has been used exclusively on the Graphophone since May of 1893. It was

adopted by Mr. Easton when he became President of the American Graphophone Company.

Q. 81. What is the outside diameter of the ordinary blank when first manufactured, and what is the average outside diameter?

A. The ordinary commercial blank is manufactured to not exceed 2 and 3-16 inches, outside diameter; usually it is a little less than that. I would estimate that the average blank would be from two and an eighth to two and five thirty-seconds inches, as every blank is subjected to two or more shavings before being used, which reduces the diameter slightly.

Q. 82. Did you recently send to me at Washington a Columbia Graphophone, specially arranged to develop high speeds?

A. I did.

Q. 83. How many threads to the inch to the record were made on that machine?

A. 100.

Q. 84. Mr. Douglass, in testifying in this case with reference to a suggestion contained in a letter, dated March 23, 1898, to use a Tainter blank, six inches in diameter, and either 6 or 12 inches long, so as to get from 5,000 to 10,000 words on a blank said, "My idea of that matter was that as they run the ordinary machine at 100 revolutions per minute and use a blank six inches long, they would get on about 2,500 words. My idea in this connection was that if you made a blank six inches in diameter and six inches long you could reduce the speed to about 50 revolutions per minute, and get on about 5,000 words, and a cylinder 12 inches long you could get on 10,000 words.

Q. 84½. If a machine were run at 100 revolutions per minute and a blank 6 inches long were used, assuming that the entire length of the blank were used, at what rate of

speed would a person talk, in order to get 2,500 words on the blank?

A. About 420 words per minute.

Q. 85. Please state how you arrive at that result?

A. There are 100 threads to the inch, six inches would contain 600 threads or 600 turns of the cylinder; if it turned 100 per minute it would plainly take six minutes to turn the six hundred, which would occupy the entire cylinder; 2,500 divided by 6 gives 416⅔ exactly, the average rate of dictation would be 416⅔ words per minute.

Q. 86. You have taken out quite a number of patents for improvements in and relating to talking machines, have you not?

A. I have.

Q. 87. Have you in any of these patents, or in any application for patent, claimed any improvement of which you were not an original inventor, and of which you did not believe yourself to be the first inventor?

A. I have not.

Cross-examination by Mr. ADCOCK:

×-Q. 1. In your preliminary statement, Mr. Macdonald, you state under oath that you "first conceived the invention set forth in the declaration of interference in November, 1897, and in that and the following month devoted much thought and study to the subject. In January, 1898, I designed and had drawings made of a machine intended to embody this conception, along with other ideas. I disclosed my ideas and discussed them with others in November and December of the year 1897." Are those statements true?

A. They are substantially true. My work at that time was upon the line of getting an improved master for making duplicate records, and it was in this line and the devel-

opment of this line of thought that produced the Graphophone Grand.

×-Q. 2. Please state what ideas you had and discussed with others in November and December of the year 1897?

(Question objected to as not germane to the direct examination, and counsel is advised that as to this and similar questions he makes the witness his own.)

(Counsel for Douglass disclaims any intention of making this witness his own, for any purpose whatever, and states that the question is believed to be strictly germane to matters testified to by the witness on his direct examination, and also to the general credibility of the witness.)

A. The question was upon duplicating. The difficulty of obtaining good duplicates from loud records was great. In my investigations about this time I became convinced that we were not getting good records or good duplicates for two reasons; first, that in making the original the wax did not get out of the way of the heel of the cutter of the recorder, so that in the downward movement of the diaphragm the cutter was interfered with, and the groove or sound wave cut upon the record was not a true one; second, that as the waves increased in amplitude the reproducing ball did not get to the bottom of the groove especially upon the loud part of the record. This fault noticeable in the original was of course magnified in the duplicate and resulted, in many cases, in the loss of good masters, or rather our inability to use masters that were otherwise good. I discussed this question with a number of the experimentalists who were working with me in the laboratory on several occasions. This naturally led to a train of thought that we ought to obviate the first difficulty as well as the second which would give the recording cutter more room; that is,

that the record be stretched out to a greater length than we were then using. These thoughts were also present in November and December and January, 1898, and started the train of thought which led up to the machine known as the Graphophone Grand.

×-Q. 3. Give the names of the persons?

(Same objection.)

A. In November, December and January, there were Mr. Flemming; I have forgotten his first name; he was then foreman of the laboratory, and the draftsman Mr. A. M. Coyle.

×-Q. 4. Any others in November or December, 1897, or January, 1898.

A. I don't recall of having talked with any one else at that time; although it is possible that I did. I think it is possible that I talked with Mr. Pierman, a man whom I had working on duplicators and taking care of the duplicating machines.

×-Q. 5. State what you said in November or December, 1897, to Mr. Flemming in relation to this matter.

(Same objection.)

A. I couldn't recall the conversation further than I have stated in my preceding answer. I have a general knowledge of having talked this matter over with these people, not very fully; I do not, as a rule, discuss these matters with any one in the factory or out of it very fully.

×-Q. 6. State what, if anything, you said in relation to this matter in November or December, 1897, to Mr. A. M. Coyle?

(Same objection.)

A. I would make the same answer to this as I did to the

preceding question. I have a recollection of only discussing it in a general way, as I have already explained.

×-Q. 7. Please state what Mr. Flemming said, if anything, to you in relation to this matter in November or December, 1897?

(Same objection.)

A. I couldn't recall the conversation.

×-Q. 8. Please state what, if anything, Mr. A. M. Coyle, said to you in November or December, 1897, in relation to this matter.

(Same objection.)

A. Mr. Coyle had no opinions to offer on the subject. I think he came here about that time and was not at that time very well posted on the art of recording and reproducing sound.

×-Q. 9. In your preliminary statement you state that "in January, 1898, I designed and had drawings made of a machine intended to embody this conception along with other ideas." Do you have those drawings now?

(Same objection.)

A. They are in existence. I have them.

×-Q. 10. Will you please produce them?

(Counsel for Macdonald instructs the witness not to produce the drawings referred to and not to answer any questions with reference to any unpatented inventions or ideas except those involved in this suit.)

(Notice is hereby given that in case the witness refuses in obedience to instructions of his counsel to produce the drawing in question—the ones referred to in his preliminary statement, in the portion thereof which

is quoted in the preceding ×-Q. 9—that a motion will be made to strike the entire deposition of the witness from the record.)

A. I must refuse to produce them.

×-Q. 11. You stated in your direct examination that you made a few tests with the Graphophone Grand in the direction of determining the speed at which the machine should be operated. Were those tests made with the machine offered in evidence and marked "First Graphophone Grand."

A. I stated or intended to state that these tests were made prior to the designing of this machine for the purpose of determining the size of the cylinder, so that I could revolve it at the ordinary speed of 120 revolutions per minute and still obtain what I desired in the way of surface speed. The object of the experiment was to determine the size of the cylinder upon this Exhibit machine, which was afterward built.

×-Q. 12. Then you made no tests with this machine marked "Macdonald Exhibit, First Graphophone Grand" to determine at what speed the machine should be operated? Is that correct?

A. As I have stated before, this machine was specifically designed to operate at a speed of 120 revolutions per minute or about that speed; the ordinary speed of talking machines, for the reason that motors then in existence were designed to drive machines at about that speed. When the machine was completed I tested it and was satisfied that my calculations were substantially correct, so much so that when the machine was placed as a commercial product I did not consider it necessary to change the size of the cylinder or change the number of the revolutions per minute—that is 120.

×-Q. 13. Please describe, in detail, the experiments you made with the ordinary Graphophone before making the

Grand, marked "Macdonald's Exhibit, First Graphophone Grand," for the purpose of determining the size of the mandrel of the Graphophone Grand; state when they were made and who were present, if any one?

A. The first experiments were made in the latter part of the spring—the exact date I don't recall, I think it was the latter part of May or 1st of June. No one was present; no one is ever present at such work that I do. I made my own records; that is talking wax records, I speeded up the machine at the highest point I could get it, when I made the last record of my experiment. The first record was made at about the ordinary speed; the dictation was the "Kilkenny Cats," requiring about an eighth of an inch or three-sixteenths of an inch of the surface of the cylinder to make the dictation. I then raised the speed to a number of successive steps, making the dictation over and over again the same dictation made under exactly the same circumstances, the object being to have all things equal, until I reached the point that I have just described in this question—that is, where I speeded up the machine to the highest possible point. I then had the pulley upon the motor made larger. I refer to the driving pulley. I then carried another series of experiments through in the same manner. I had a third pulley made and carried through a third series of experiments. These experiments convinced me that there was a speed where the cutter would be entirely free to operate and the reproducer ball entirely free to follow. As I found an increase up to about the surface speed of 1,750 inches per minute. Beyond this point I found some improvement, but nothing so marked as the improvement at that speed over the ordinary record. No one was present at this experiment. They were not all made at one time, but extended over quite a period, possibly a month, possibly longer. They were repeated—these dictations I

mean—were repeated on different occasions. I then in July, I think of the same year, 1898, made an experiment with Mr. Fisher, who was a singer at that time, in our employ and is still. I did not care to reveal to Mr. Fisher what I was doing but desired to find out how the thing would operate with a singer and to find out whether there was any improvement, so I went over to the music room where Mr. Fisher was at work, where he was singing then to a Phonograph fitted with a Macdonald recorder. I threw off the governor belt of the Phonograph as he started the thing and allowed the machine to "run away," and he made the record until the recorder reached the end of the cylinder, which of course was very much sooner than any of the other three machines to which he was singing. We then reproduced this record upon a Graphophone, an electric Graphophone, where we tied down the governor and allowing that machine also to "run away" so that the speed approached somewhere near the speed at which the record was made. The reproduction was very loud, so much so that it attracted Mr. Fisher's attention very remarkably. The government of the record was not good, as the pitch was first up and then down, and I am not positive that it was reproduced at the exact speed that it was made at. I did not care. There were so many of the elements that I was looking for in the record and which my experience enabled me to detect that I was satisfied with the one experiment, and did not ask Mr. Fisher to make any more. This experiment satisfied me that the conclusions I had arrived at from my talking records would hold in the case of singing, and after some further consideration of the subject I determined to build the machine as here produced, and the drawings for this machine were started within a very short time after this experiment; probably within a month or six weeks at the outside.

×-Q. 14. You say you did not care to reveal your ideas involved in your experiments to which you have referred to Mr. Fisher. To whom and when did you first reveal them to any one?

A. To which particular experiments do you refer?

×-Q. 15. I mean the ideas involved in any and all of your experiments which you have thus described?

A. On October 18, 1898, to Mr. Easton.

×-Q. 16. When did you first reveal to any one your ideas involved in "Macdonald's Exhibit, First Graphophone Grand"?

A. Outside of the explanation that I have made in regard to conversations with Fleming, Coyle, and the experiment with Mr. Fisher, and a possible test or two in the presence of the workman who finally completed the machine, Mr. Osborne, I did not reveal them to anybody except to Mr. Easton, and I did not tell Mr. Easton further than that I would explain the work upon which I was engaged, which is reported in the reports of the laboratory, until the exhibition of October 18, 1898.

×-Q. 17. When and to whom did you first disclose or explain to any one your idea that the loudness and quality of a sound record could be very greatly increased and improved by substantially doubling the speed?

(Question objected to as assuming what has not been testified to.)

A. I never made exhibits of any machine to any one where I claimed to substantially double the speed. When I exhibited the machine the speed was about 1,750 to 1,800 inches per minute, which is more nearly three times the ordinary speed than double. Outside of the experiment which I have described and made with Mr. Fisher's assistance, the first exhibition was to Mr. E. D. Easton on Octo-

ber 18, 1898, the same day the exhibition was made to Mr. Douglass, Mr. Babson and the other gentlemen who were present on that day.

×-Q. 18. When did you first disclose or explain to any one your idea that the loudness and quality of the sound record could be very greatly improved and increased by very materially increasing the speed at which the record was made and reproduced over that ordinarily and customarily employed?

A. The same answer as in the preceding question. The only time in which I explained or showed a machine of that character was in the experiments made with Mr. Fisher's assistance and in the exhibition to Mr. Easton, aforementioned.

×-Q. 19. Then with the exception of the experiments made in the presence of Mr. Fisher, to whom you say you did not reveal your ideas, you kept to yourself all knowledge of your ideas about increasing the speed, improving and increasing the quality and loudness of the record, until you first explained them to Mr. Easton on October 18, 1898. Is that correct?

A. That is substantially correct, except that in the discussion of the building of the machine with the draftsman, Mr. Coyle, the workmen, who were employed upon it, and Mr. Osborne, I may have explained partially why I was building what then looked like such a ridiculous machine. The cylinder was known in the factory, to those who saw it, as the sewer pipe machine, from the fact that it looked like a joint of sewer pipe, and of course it caused considerable comment among those who saw it, but I did not then nor do I now, nor do I expect to in the future, reveal to the workmen and draftsmen and others in the factory the results I expect to get in my experiments.

×-Q. 20. In your last answer the machine you referred

to is the one marked, "Macdonald Exhibit, First Graphophone Grand?"

A. It is.

Adjourned until to-morrow, Friday, January 19, 1900, at 9.30 o'clock, A. M.

FRIDAY, January 19, 1900—9.30 o'clock A. M.

Present: Same parties as before.

Cross-examination of Thomas H. Macdonald, continued.

×-Q. 21. I understood you to say that prior to October 18, 1898, Mr. Easton saw the machine marked "Macdonald's Exhibit, First Graphophone Grand" while it was in course of construction? What, if anything, was said by you or by Mr. Easton in relation to it?

A. At this time, and for some time prior, we had been working to obtain a permanent or semi-permanent master for duplicating purposes, and as I have before explained, the experiments were started and conducted principally with a view of obtaining a very much better master or record of sound to be used as a master. All my talks with Mr. Easton were upon this basis; that is, a machine to produce a better master, one that would have a much longer life and would produce better results. I did not go into the details with Mr. Easton, nor does he ever inquire very closely into the details of experiments. He was aware of the construction of the machine and was aware that I expected to get results that would be improvements on the then-existing masters which we were using for our duplicating machine.

(Answer objected to by Mr. ADCOCK as wholly irresponsible to the question.)

×-Q. 22. Please state what, if anything, you said to Mr. Easton in relation to the Exhibit "First Graphophone

Grand" machine, while it was in course of construction at any interview you had with him during this time?

A. Mr. Easton visited the factory as a rule once a week. At such times I usually accompany him to the various departments sometimes visiting all of them, sometimes perhaps not all of them. I think a great majority of cases he always went through the laboratory. I usually call his attention to any work I had in hand there and am satisfied now that I did call his attention to this machine several times, that I explained to him that I expected to get a very much better sound record from this machine and that my idea then was to use it for a better master; just exactly what words I said to him or the words he said to me I do not recollect. He was satisfied and had me pursue the investigation and build the machine for the purpose that I explained to him. I do not remember any further than this relative to explanations or conversations with Mr. Easton before the exhibition of October 18, 1898.

×-Q. 23. What, if anything, did Mr. Easton say to you at any of these interviews while this Exhibit machine was in course of construction in relation to it?

A. He expressed satisfaction with the experiment and hoped that I would succeed, and, as I recollect it, stated that this was the subject upon which a great many were working; that is, a permanent master, and that it was a thing that was urgently needed in the business; that is, better results, that is something everybody was striving for and would mark an epoch in the talking machine business, but I do not recollect the exact conversations but have a general recollection that he gave his approval to the investigations and experiments which had in view the bettering of the product.

×-Q. 24. Prior to October 18, 1898, who, if any one, besides Mr. Easton, saw this "Macdonald Exhibit, First Grapho-

phone Grand" machine, either in course of construction or after completion prior to said date?

A. Mr. A. M. Coyle, Mr. F. H. Osborne, Mr. Plummer, Mr. E. E. Norton, Mr. James I. Brereton, Mr. C. H. Kneeland, all the workmen in the laboratory, and all those I have mentioned, Mr. Clement March, Mr. Walter P. Phillips, Mr. Cromelin, and probably 35 or 40 others in the factory saw the machine either in its completed state or partially completed state and were aware that a machine was being built for a very large cylinder.

×-Q. 25. Prior to the completion and first trial of this "Macdonald Exhibit, First Graphophone Grand," did you ever tell any one when they were looking at it that it was somebody else's idea than your own?

A. No, sir; I did not.

×-Q. 26. Do you know Mr. Emerson?

A. Yes, sir; I do.

×-Q. 27. What is his first name?

A. Victor Emerson.

×-Q. 28. Did he ever see the machine while it was in course of construction or after completion prior to October 18, 1898?

A. I think it is possible that he did, as he frequently went through the factory with Mr. Easton or other officials of the company of New York. I cannot recall now any specific instance of his seeing the machine prior to that date.

×-Q. 29. Do you positively state under oath that you never told any one prior to October 18, 1898, and after the commencement of the building of this Exhibit First Graphophone Grand, that it was somebody else's idea than your own?

A. I positively state that I did not prior to October 18, 1898, or at any subsequent time tell any one that it was any one's idea except my own.

Q. 30. Don't you remember of stating that it was Mr. Osborne's idea or Mr. Norton's idea, and that it was no real?

A. I do not remember stating that it was Mr. Norton's idea or Mr. Osborne's idea, to any one, and am positive that I did not so state to any one. Mr. Norton was not at that time in the laboratory nor was he connected with it. Mr. Osborne is the workman who built the machine and knew absolutely nothing about it until he received the drawings.

×-Q. 31. Then you positively deny telling any one substantially that it was anybody else's idea than your own?

A. I positively deny making any such statement.

×-Q. 32. State what, if anything, you said to Mr. Pierman, in November or December, 1897, in relation to the invention shown and described in your application and forming the subject-matter of this interference?

A. The only point discussed with Mr. Pierman at all was the fact that we did not get very good results from masters that were apparently good, and had passed the master testers and were accepted as good masters. They usually failed in the very loud or strong passages, and in discussing this question I stated that it was my belief that the crests of the vibrations were too close together and that the reproducer that we were using did not have a chance to get down and follow the engraved sound wave, and consequently did not faithfully reproduce it and that the duplicate was defective. I expressed the belief that the cure for it was to stretch out the sound record, give the reproducer a chance to pick up these vibrations; also that even the master itself was not a faithful reproduction of the original sound wave from the fact that the recorder did not have a chance to record the waves on account of the heel of the cutter being interfered with by the receding wax which did not get out of the way quickly enough. This was the germ thought of this inven-

tion, and I revealed it so far as I have explained here at that time to Mr. Pierman and to others I think, as I discussed the question considerably.

×-Q. 33. To what others do you now pretend to have explained or communicated the ideas mentioned in your last answer in November or December, 1897?

(The form of the question is objected to as improper and offensive.)

A. What do you mean by "pretend"?

×-Q. 34. Claim, assert.

A. I stated in my answer I had a general recollection of stating this point quite generally, about this time, and later periods in about the way I have explained it in the preceding answer.

×-Q. 35. The question is to what others than Mr. Pierman in November or December, 1897?

A. The same discussion as explained in the preceding answer probably was had with Mr. Flemming, Mr. Coyle, and at a later date Mr. Tainter.

×-Q. 36. When first with Mr. Tainter?

A. Some time probably in July or August; July, I think; it was about that period; Tainter was here at the factory during the summer of 1898. I also explained it to Mr. Fisher at the time he made his experiment, in so far as I believed a better record was obtained.

×-Q. 37. When now do you state that you first disclosed or explained to any one the idea or method of making a sound record by very materially increasing the surface speed of the tablet or blank while the record was being cut upon it by the recorder?

A. As I have before stated in November and December, 1897, I discussed the question of a better master with Mr. Pierman, Coyle and others that I believed if the sound

waves were lengthened out, that is a greater surface speed which is the only possible way of lengthening the sound wave, were given to the blank better results could be obtained. I did not tell Mr. Pierman the mechanical and patentable combinations I expected to make; I revealed the thing to Mr. Coyle when I gave him instructions to make the drawing, and the dimensions of the drawing on which the Graphophone now in evidence was built; I revealed and explained it in part to Mr. Fisher, when I had him make the sound record, which I have described; I revealed it to Mr. Tainter and I told him that I believed I would get a master record by building a machine that would carry a five or six inch cylinder; I revealed it to Mr. Osborne when I gave him the drawings to build the machine sometime in August, 1898; I revealed it to Mr. Easton and to all of the people who accompanied him in his visits to the laboratory; and I showed him the machine under construction, and I did not tell any of these people my exact patentable combinations, farther than I have explained here. I told them that I expected to get better results and to mechanics skilled in the art, as most of them are, the method must have been and was undoubtedly understood by them.

×-Q. 38. Since the adjournment yesterday evening, and prior to the commencement of your testimony this morning, have you talked with your counsel, Mr. Mauro?

A. For five or six hours, yes.

×-Q. 39. In your testimony yesterday you stated that you first revealed your ideas involved in the invention forming the subject-matter of this interference to Mr. Easton as the first person, and that this occurred on October 18, 1898, and you further stated that you did not care to reveal your ideas to Mr. Fisher, and you further stated that you kept to yourself all knowledge of your ideas about increasing the speed, improving and increasing the quality and loudness

of the record, until you first explained them to Mr. Easton on October 18, 1898. Cross-Q. 19 and your answer thereto being as follows:

"X-Q. 19. Then with the exception of the experiments made in the presence of Mr. Fisher to whom you say you did not reveal your ideas you kept to yourself all knowledge of your ideas about increasing the speed improving and increasing the quality and loudness of the record until you first explained them to Mr. Easton on October 18, 1898. Is that correct?

A. That is substantially correct, except that in the discussion of the building of the machine to the draftsman and Mr. Coyle, the workmen who were employed upon it, and Mr. Osborne, I may have explained partially why I was building what then looked like such a ridiculous machine; the cylinder was known in the factory to those who saw it as the sewer pipe machine from the fact that it looked like a joint of sewer pipe and of course it caused considerable comment among those who saw it, but I did not then nor do I now, nor do I expect in the future to reveal to the workman, draftsman and others in the factory, the results I expect to get in my experiments."

Will you now please state whether this testimony you gave yesterday was true or false?

A. The testimony was true. My understanding of the word "reveal" in the previous question and in the question quoted, as I understood it then and as I understand it now, means that I did not reveal the results I expected to get from the building of this specific machine, with a mandrel five inches in diameter about running at a speed of from 115 to 120 revolutions per minute. My understanding of the previous answer as to the revelation to Mr. Coyle, Mr. Pierman, Mr. Tainter and Mr. Fisher was that I showed them what I have testified to. I did not go into explanation of what I expected to get, but I showed them the

machine that I expect to build in so far as the drawings would reveal it. It was my intention to have the cylinder run at 120 revolutions per minute. To obtain that speed it was necessary to instruct the draftsman to build his pulleys, his motor and mandrel accordingly. He must have known that if this cylinder was to be driven at a speed of from 115 to 120 revolutions per minute that the surface speed would be greater than that of a cylinder two inches and three-sixteenths in diameter revolving at the same number of revolutions per minute. I did not explain to Mr. Coyle anything further about the results I expected to get. I consider that when I instructed this draftsman to make this machine, gave him the size of the cylinder, the number of revolutions per minute that it was expected to make that that covers what I have testified to in the previous question as having revealed it to Mr. Coyle. I consider that when I made a record in the presence of Mr. Fisher at a very high rate of speed and reproduced it in his presence at a very high rate of speed that that covers the revealing to Mr. Fisher, and that all the workmen who built this machine, workmen who were skilled in the art when I instructed them to build a machine and they did so build a machine, with a mandrel five inches in diameter to run at a speed of 120 revolutions per minute, or nearly that, that this was a revelation to them, as I understand it, in my previous answer and I further state that a complete accurate description of all the points involved in this machine, what I expected to get and what I demonstrated I had gotten, was first made to Mr. Easton, that to him was made the first explanation of the results of my experiments and why every experiment was made which had resulted in the complete machine which I showed him.

X-Q. 40. Then, as I now understand you, you kept to yourself all knowledge of your ideas about increasing the

speed, improving the quality and loudness of the record, until you first partially or wholly disclosed them to the workmen who were employed upon the building of Macdonald's Exhibit, First Graphophone Grand, or to Mr. Coyle the draftsman, who worked on the drawings of that machine; is that correct?

A. That may be your understanding of my answer, I don't believe I can make my understanding of it any clearer than I have in the answer preceding, on this subject.

×-Q. 41. Until such disclosure as you may have made to Mr. Coyle, the draftsman, and the workmen who were employed in building Macdonald's Exhibit, First Graphophone Grand, did you, or did you not, keep to yourself all knowledge of your ideas about increasing the surface speed, improving or increasing the quality and loudness of the record?

A. I cannot make that any clearer than I have done. I state it was my intention to reveal, by direct statements, as little as possible of my invention; that is, in the exact mechanical and patentable combination that I expected to build, and the results to be obtained from them. I revealed in so far as I have already testified, and to the people whom I have named, as much as I considered absolutely necessary for them to intelligently construct the machine now in evidence. As to how much or how little they understood by what I told them and showed them I cannot say; possibly some of them considered that they had a full revelation of my entire ideas; others may not have understood anything about it further than it was an experiment with a large cylinder.

×-Q. 42. When did you first tell any one anything about the experiments which you made with the ordinary Graphophone and ordinary size record blank, and in which you increased the speed from the ordinary speed to successive

higher speeds; and if, to any one, state to whom, and when, and what you said?

A. I don't recall explaining that particular item now in the series of experiments; I may have, but don't recall it.

×-Q. 43. The question referred to not one but all of the experiments which you have testified about having made with the ordinary Graphophone before commencing the building of Macdonald's Exhibit, First Graphophone Grand. Please answer the question again with this in mind.

A. I couldn't recall when any particular series of experiments was first mentioned to any one. I made those experiments in my private room myself, as I make most of those experiments. It is possible that I mentioned it to some of the people that I have named, and it is possible I did not.

×-Q. 44. When and to whom did you first mention the idea of employing on a talking machine a sound record of large diameter—by large I mean materially larger than the ordinary, say four, five or six inches in diameter?

A. In the winter of 1896 or 1897, sometime around that time. I made them a rough sketch of the machine with a cylinder 12 inches long and 4½ inches in diameter. I made a rough sketch of that machine.

×-Q. 45. Have you that drawing?

A. I have.

×-Q. 46. Will you please produce it.

A. I have here produced them.

×-Q. 47. Are there any dimensions marked on these drawings?

A. There are none, I think; I am not sure of that.

×-Q. 48. Are there any dates on either of these drawings?

A. There is no date.

(Counsel for Macdonald at this point renews his notice that as to matters now under inquiry, counsel for Douglass has made witness his own, and requests counsel for Douglass to state whether he wishes the drawings witness has produced put in evidence.)

(Counsel for Douglass in reply states that he entirely disclaims making this witness his own for any purpose, and that this cross-examination is strictly germane to the direct testimony of the witness and that he at present has no intention of offering the drawings in evidence.)

(Mr. MAURO: Counsel for Douglass undoubtedly understands that the legal consequences of his action are not affected either by his intentions or by his disclaimer. The drawings which the witness has identified are now offered in evidence to be marked respectively "Macdonald Exhibit, Drawing 1896-7, Nos. 1 and 2.")

(The offering of said drawings is objected to as irregular, incompetent, immaterial and inadmissible. The witness' answer X-Q. 44 is objected to as wholly irresponsible to the question and the question is now again repeated, as follows:)

X-Q. 49. When and to whom did you first mention the idea of employing on a talking machine a sound record of large diameter—by large I mean materially larger than the ordinary, say four, five or six inches in diameter?

A. In the fall of 1896, I think, possibly it was in January of 1897, to Mr. E. D. Easton, Mr. E. E. Norton, my brother, George C. Macdonald, and I don't remember how many more. I made the rough sketches I have here offered about that time; talked the matter over fully with Mr. E. D. Easton, with my brother, and with Mr. E. E. Nor-

ton, who is now the mechanical engineer of this factory. The machine was not built nor were any further drawings made than those shown. I will say perhaps further on this question that this machine did not contemplate a high surface speed. It was made solely with the idea of getting a long record. The intention being to use the ordinary commercial surface speed. It was to be built for some gentleman whom Mr. Easton was in correspondence with but who decided not to have the machine built. The matter was dropped.

(All of the above answer, except the first sentence thereof, is objected to as wholly irresponsible to the question.)

X-Q. 50. When and to whom did you first mention the idea of employing a high surface speed in making a sound record? I mean by high surface speed, a speed of say from 1,300 to 1,800 inches per minute.

A. I don't remember specifically designating the exact surface speed in so many words, to any one further than that would be revealed to Mr. Coyle and the various workmen who constructed the machine when I instructed him and them to make the drawings for a machine having a cylinder five inches in diameter and run at a speed from 115 to 120 revolutions per minute. I consider that when I instructed Mr. Coyle to make the drawings for such a machine and gave the drawings to the workmen to construct such a machine that I revealed to them the surface speed of such machine, but do not recollect specifically telling them that this machine must be run at any exact number of inches per minute. Mr. Coyle was instructed to make these drawings to the best of my recollection some time in the latter part of July, 1898, and completed them on August 12th of the same

year, and I would interpret that this was the first actual revelation of the specific speed upon which I had fixed for the Graphophone Grand.

×-Q. 51. The drawings to which you referred in your last answer are the ones which have heretofore been offered in evidence and marked "Macdonald's Exhibit, Pencil Drawing," and "Macdonald Exhibit, Blue Print Drawing" are they not?

A. They are the drawings.

×-Q. 52. Please look at these two Exhibit drawings, marked respectively, Pencil Drawing and Blue Print Drawing, and state what, if anything, there is, on either of them to indicate, or indicating, either the surface speed of the mandrel or the record blank thereon, or the number of revolutions of the mandrel shaft, per minute?

A. These drawings were made as I have testified, to run from the standard motor then in use. The pulley represented upon this drawing which drives the mandrel and which carries the record is made the standard size of the pulley used at that time to drive a machine 120 revolutions per minute. It was the intention when this drawing was first made to fit it to the body of the motor of an Edison Phonograph. It was so fitted, and the pulley represented in this drawing is very nearly the exact size of the pulley used upon an Edison Phonograph. The Phonograph motor, however, would not govern sufficiently accurate, and then I fitted up the machine with a Graphophone motor and placed a slightly larger pulley upon it on account of the higher speed of the graphophone electric motor. But the drawings as here shown with the pulley were intended to be fitted to the said Edison motor and the ordinary Edison motor with the pulley here shown running at its normal commercial speed would drive such a machine at about 120 revolutions per minute.

(The answer is objected to as wholly irresponsible to the question; also for the further reason that it consists chiefly, if not wholly, in a pretended statement of intentions, and not facts.)

×-Q. 53. Is there any motor shown on either of these drawings?

A. There is no motor shown on either of those drawings.

×-Q. 54. Nor is there anything on either of these drawings showing how or from what source the pulley on the mandrel shaft receives the motor?

A. There is.

×-Q. 55. Please point it out.

A. It is made in exact representation of the motor pulley and support therefor of an Edison phonograph, and clearly indicates to those skilled in the art the source from which it is intended to be driven, as the art existed at that time.

×-Q. 56. How slow will the motor of an Edison Phonograph drive the mandrel shaft?

A. I don't know. It might drive it down to zero and from that point up to the limit of the governor, which will not exceed, ordinarily, 200 revolutions per minute. Motors vary greatly in their ability to run slow.

×-Q. 57. Do the words "Special Graphophone for making master records" which appear on McDonald's Exhibit, Blue Print Drawing, indicate that the machine of this drawing was intended for at the time the drawing was made, or these words put upon it?

A. They indicate just what is stated; that the machine was designed for making commercial masters for use, for duplicating and producing duplicates to sell, and this is proof, absolute, to those skilled in the art, that this machine must have run practically at the same rate of speed as the ordinary mandrel, for the length there shown is the same

length as that of the ordinary master, and a master record which would fill this cylinder and be duplicated to a cylinder two and three-sixteenths inches in length must of necessity occupy practically the same period of time in its making and reproduction as that upon the ordinary commercial cylinder. Therefore the surface speed of this cylinder must of necessity be much higher than that of a smaller cylinder.

A recess was here taken until 1 o'clock P. M.

After recess.

Cross-examination of Thomas H. Macdonald continued.

×-Q. 58. Then your intention, in using the machine of this drawing marked McDonald's Exhibit, Blue Print Drawing for making duplicates, was to make the duplicate on an ordinary sized record blank about two and three-sixteenths inches in diameter and rotating at the ordinary speed of about 120 revolutions per minute. Is that correct?

A. This machine was not intended to make duplicates. This machine was intended to make master records which were to be used on a duplicating machine, and on that duplicating machine would produce records exactly similar, or duplicates exactly similar, rather, to the ordinary commercial product, which is about two and three-sixteenths inches in diameter and intended to rotate at about 120 revolutions per minute.

×-Q. 59. A meter is a little over 39 inches in length, is it not?

A. The legal meter in the United States is 39 37-100ths.

×-Q. 60. 44 meters then corresponds to how many inches?

A. I make 1,732 and 28-100ths inches, if I have multiplied correctly.

×-Q. 61. What is the surface speed of the ordinary size

blank, two and three-sixteenths of an inch in diameter rotating at 120 revolutions per minute?

A. The exact figure, which I do not recollect, is about between 750 and 800; I have forgotten the exact figures.

×-Q. 62. The exact figures are 824 inches and a fraction per minute, are they not?

A. Somewhere in that neighborhood. That is about the speed, I think.

×-Q. 63. Double that speed would be 1,648 inches per minute, would it not?

A. It would.

×-Q. 64. Two and a half times 824 inches is 2,060 inches.

A. Yes.

×-Q. 65. And three times 824 inches is 2,472 inches; that is correct, is it not?

A. I think that is correct; I haven't multiplied them.

×-Q. 66. When you stated in answer to ×-Q. 17 that the speed of 1,750 to 1,800 inches per minute was more nearly three times the ordinary speed than double the ordinary speed, you were in error, were you not? As double the ordinary speed would be 1,648 and three times it would be 2,472.

A. The speed of the machine on exhibition was approximately 1,900 inches a minute when it was made. I had that in mind in answering the question. I did not have the exact figures of the surface speed, or rather the comparative surface speed, of the two cylinders in mind and it is possible that it is about $2\frac{1}{2}$ times or a little less than that instead of about three times as I stated.

×-Q. 67. In your above answer by the words "in answering the question" you refer to answering ×-Q. 17, did you not?

A. I refer to the question whose substance you incorporated in the question just preceding this; it might be ×-Q. 17 or 1700 for all I know.

×-Q. 68. The express language of your answer to ×-Q. 17 is as follows:

"When I exhibited the machine the speed was about 1,750 to 1,800 inches per minute, which is more nearly three times the ordinary speed than double."

And now instead of frankly acknowledging what I supposed to be a purely mathematical error, you wish to have it understood, do you, that when you said "1,750 to 1,800" you really had had in mind 1,900?

A. What I had in mind at the time the question was answered was the apparent diameter of the two cylinders in question. The extreme diameter at which any ordinary record can be made is less than two and three-sixteenths inches, as the blanks are gauged with a positive gauge and must pass through a two and three-sixteenths gauge in their rough state; before records are placed upon them they are subjected to from two or more shavings, which frequently reduces their diameter as much as a sixteenth of an inch. The blank upon the Graphophone Grand is five inches and the comparative diameters was in my mind at the time and not the number of inches per minute which the ordinary blank runs. The question was answered from that standpoint. It was a point that I had not figured out; it was one that I did not consider of such specific importance, as the results obtained from a machine are what determine its value in experimental work. After figuring it out here the speed—the surface speed, of the Graphophone Grand as compared with a cylinder of two and three-sixteenths in diameter running 120 revolutions per minute is somewhat less than $2\frac{1}{2}$ times such ordinary cylinder—surface speed.

×-Q. 69. Don't you know that five is more nearly twice than three times two and three-sixteenths?

A. Yes.

×-Q. 70. In the Type U Graphophone what is it that limits the speed or number of revolutions of the mandrel shaft per minute?

A. Do you mean the speed at which the mandrel shaft may be governed, or at a speed which cannot be governed; a machine that is allowed to run away?

×-Q. 71. I mean both?

A. The speed at which the machine can be governed and a record made that is acceptable in the ordinary sense of the art—that is, a record run at a uniform speed as near as possible to uniform speed throughout, is limited by the slide of the sliding collar of the governor. As soon as the revolutions of the governor reach a certain point, the sliding collar will be jammed; the governor becomes practically a fly wheel, and it will then depend entirely upon the amount of battery force to put to it and the amount of resistance in the machine, and the speed will be very irregular and uncertain—cannot be controlled; it would vary greatly in different machines, and would be always irregular and uncertain at any point; the probable limit of that speed would be the bursting of the governor.

×-Q. 72. How high would the speed probably get before the governor would burst?

A. I couldn't tell you.

×-Q. 73. Use your best judgment?

A. Couldn't form any judgment on it without an experiment.

×-Q. 74. It could readily be run up to a speed of 300 or 400 revolutions per minute without any danger of bursting the governor, could it not?

A. It would be very difficult to determine the number of revolutions per minute of such a machine running away, as the speed would be very variable and uncertain; during the first few seconds of the minute it might be three or four

hundred, during the next ten or fifteen it might be five or six hundred; it might be a thousand and within the same minute it might, and probably would, vary through all these ranges and possibly a much higher rate, depending entirely upon the strength of the battery and the resistance in the machine.

×-Q. 75. The point or speed at which the governor slide reaches the limit of its travel or becomes jammed, as you termed it, depends entirely upon the particular setting or adjusting of the governor, does it not?

A. It does not; it depends upon the construction of the machine. The type U machine and the type K machine were furnished with a governor that had a definite limit to the slide. This was fixed by a slot cut in the shaft, through which was a pin. The amount of range of this governor was limited by the length of this slot. The governor could not be set back on the shaft on account of the commutator of the machine. In designing all of those machines, all those governors, I had in mind entirely the commercial uses of the machine, and the intention was in every case to design the machine to not allow the governor to run much beyond one and a half times the working speed. The machine could be rebuilt and changed to govern at a higher speed, but such machines were not built nor sold nor sent out from this factory, nor to my knowledge by this company.

×-Q. 76. In the type C Graphophone, running with an electric motor, what is it that limits the speed of the mandrel shaft or number of revolutions it makes per minute?

A. The same motor is used and the same governor as that to which I have referred in the case of the type U and the type K machines and the same explanation will apply in this type of machine.

×-Q. 77. In all three of these machines, type U, type K

and type C, is the governor on the motor or on the Graphophone or its mandrel?

A. The governor is always on the motor, on all types of machines.

×-Q. 78. When the type C Graphophone was first put out about July, 1897, it was for the first few months furnished with a considerably smaller driving pulley on the mandrel shaft than was subsequently adopted on this machine, the size of the pulley afterwards being increased because the mandrel ran too fast; is that correct?

A. It is not correct.

×-Q. 79. What is the fact?

A. The fact is that the proportion between the driving pulley and the driven pulley was not changed, but in the first case the pulley upon the motor shaft was so small that the belt gave a great deal of trouble from slipping. We increased the size of the motor pulley and to preserve the same proportion between the motor and the main machine we increased the pulley on the main. To the best of my recollection this was done on the very first machines, whether any were sent out with the very small pulley—the electric machines I refer to, as the size of the pulleys on the spring motor machines were never changed—I am not certain. It is possible that electric machines may have been sent out with the small pulleys. I would say further in explanation of this that all these machines were designed for a positive number of rotations per minute—120 being supposed to be the maximum at which they would be used, and some users of this type of machine I have understood have used them as low as 60 revolutions per minute.

×-Q. 80. On October 18, 1898, for what purpose did you remove the horn from Macdonald's exhibit of the first Graphophone Grand after the exhibition of the machine in operation to Mr. Douglass and the other parties then in the room?

A. It was necessary to change the cylinder for some reason, and to facilitate the changing of the cylinder on the machine and the operating of it I removed the paper covering the machine. The reason for removing the horn was that I had made a hole in the paper through which I had passed the trunnion seat, as we call it, or projecting part upon which the horn is usually placed upon the machine. Taking the paper off was simply to pull the horn from the machine, the horn being supported on a tripod and attached to the machine by a piece of rubber tubing. I merely pulled the horn off from the machine with one hand for an inch or two and dropped the paper, and placed the horn connection back on the machine.

×-Q. 81. After removing the horn and paper and again putting the horn back, did you then proceed to pare the record cylinder preparatory to making a new record on the machine?

A. I couldn't recall that—just what was done at that time.

×-Q. 82. Don't you recall that after paring the record cylinder Mr. Fisher sang to the machine and made a new record?

A. Mr. Fisher made a new record I think; he made parts of several records. But as to whether I pared the cylinder then or not I couldn't say. I may have done so, but I can't recall whether I did or not.

×-Q. 83. Don't you remember that when Mr. Fisher began to sing to make a new record on the machine at this time that he started the song too high and broke down and had to start over again?

A. I do. I think Mr. Fisher broke down once or twice in the singing during the exhibition. He had no accompaniment to give him the key.

×-Q. 84. Do you mean to state that the conversation which you have stated in your direct examination took

place on October 18, 1898, at the time of this exhibition of this first Graphophone Grand machine was all the conversation that took place?

A. No; I think there was much more than that took place.

×-Q. 85. Do you mean to state that you heard and paid attention to everything that was said by Mr. Douglass and by Mr. Easton on that occasion?

A. I think I heard everything that took place, or rather everything that was said succeeding the first two or three exhibitions of the machine, as I considered that the exhibition was one of the most important that I had ever made. I was thoroughly awake to any criticism favorable or unfavorable that might be made upon the introduction of the machine. I am very certain that if I had heard any statement wherein it was suggested or implied that Mr. Douglass had ever heard of this machine or anything like it, or had ever claimed to be the inventor of it or anything like it, or that Mr. Easton had acknowledged anything of that nature, that I would have remembered it as positively and distinctly as it is possible for me to remember anything or any statement ever made by any one. And I am positive that no such statement was made at that time.

×-Q. 86. After Mr. Douglass's Polyphone attachment had been put on an ordinary Graphophone with the ordinary sized record cylinders and exhibited in operation in this same room on that same day Oct. 18, 1898, did you hear Mr. Easton say to Mr. Douglass that it (the Polyphone) compared very favorably with the big machine or Grand, or words substantially to this effect?

A. My recollection of the Polyphone exhibition, or rather attempt at exhibition, for to the best of my recollection it was a failure and would not work with the machine, the only comment was that it was not adapted to the Grapho-

phone and would work much better upon the Phonograph. I did not hear Mr. Easton say anything which I could interpret that it compared in any way with the exhibition of the Grand. And I feel positive that if I had heard such an expression of opinion I would remember it very distinctly.

×-Q. 87. You do recollect that Mr. Douglass's Polyphone attachment was at that time and in this room exhibited in operation on the ordinary Graphophone?

A. It was placed upon an ordinary Graphophone, but I have always considered that the makers of the Polyphone did not consider what we saw and heard as a exhibition of the device, but only an attempt to fit the machine to the ordinary Graphophone. I think the question was raised at that time about the angle of the trunnion on the Graphophone and that Mr. Douglass or Mr. Babson asked me that day if these trunnion seats were made alike and there was difficulty in making the device track upon the record, and I did not, nor do I now, consider that the exhibition was a fair one to show the merits of the device, as great difficulty was had in making it track upon the cylinder; and it was explained I think by Mr. Douglass or Mr. Babson that the machine (that is the Graphophone trunnion) varied somewhat from the machine he had used it upon.

×-Q. 88. Do you recollect that before Mr. Douglass put his Polyphone attachment on the ordinary Graphophone he asked to put it on Macdonald's Exhibit First Graphophone Grand?

A. I think he did.

×-Q. 89. And do you recollect that you refused to allow him to do so?

A. I do not recollect refusing to allow him to do so, nor did I refuse. The Polyphone which Mr. Douglass had with him could not be placed on this machine. Mr. Douglass

stated so at the time after looking at the machine (or Mr. Babson) nor can it be placed upon this machine.

×-Q. 90. Don't you remember that Mr. Douglass told you at this time that he could put his Polyphone attachment on the Grand if you would give him another trunnion, and that you told him you didn't have any?

A. I think that is true, if I am not mistaken; nor did we have any trunnion which could be used, nor have we any trunnion now to which Mr. Douglass or anybody else could attach the Polyphone, which was in this room at that time, to this machine. The trunnion for which the Polyphone as then exhibited was fitted was of entirely different shape and construction from that on this machine. And we have no trunnion similar to the one for which the Polyphone was fitted that could be attached to this machine, nor have we any now.

×-Q. 91. Does Macdonald's exhibit "First Graphophone Grand" have the same trunnion now upon it that it had when the machine was exhibited on October 18, 1898?

A. It has the same trunnion, or one exactly like it. This machine was used experimentally for quite a while. It is possible that the trunnion itself, which is on that machine might have been changed, but the one that is now here is exactly the same type. They were all made from the same patterns.

×-Q. 92. Please state if Macdonald's exhibit of the first Graphophone Grand is now the same as it was when exhibited on October 18, 1898, and if not what changes have been made?

A. The only change that has been made, to the best of my knowledge and belief, is the addition of two stiffening bars, I call them, placed upon the trunnion to hold it securely in place, as this machine was used for a long period for making the master records, or making the records for

the Graphophone Grand, and was exhibited in the factory during the months of November, December, January, to a great many people.

×-Q. 93. The two stiffening bars mentioned in your last answer are the two brass braces secured by screws at their upper ends to the trunnion, and at their lower ends by the screws to the curved arm that extends over the mandrel and carries the trunnion. Is that correct?

A. To the best of my recollection that is all that has been added to the machine.

×-Q. 94. The machine now has no paring knife, has it?

A. It has not.

×-Q. 95. There was a paring knife on it Oct. 18, 1898?

A. That I cannot state. The paring knife was a separate attachment on the back part of the arm with a thumb screw, and we usually removed it when making and reproducing records. It may have been on the machine at that time and it may not.

×-Q. 96. On October 18, 1898, the trunnion was secured to the curved speaker arm by a thumb screw, was it not?

A. It was.

×-Q. 97. And could be adjusted to different positions on the speaker arm?

A. It could.

×-Q. 98. And if you had another similar trunnion there would have been no difficulty whatever in trying the Polyphone attachment on this Grand machine?

A. There would have been difficulty, and in my opinion it would take a good mechanic with suitable tools at least half a day to fit this machine with any trunnion so that the device known as the Polyphone could be used upon it.

×-Q. 99. What was the thickness of the first record blank which you made to use upon this Macdonald's exhibit First Graphophone Grand?

A. What do you mean by thickness?

×-Q. 100. The radial distance through the cylindrical shell?

A. Which end?

×-Q. 101. Both ends?

A. Both ends are not alike. One is much thicker than the other.

×-Q. 102. Please state the thickness of both ends?

A. I don't recollect it; don't think I measured it. The outside diameter was about five inches on the blank at both ends.

×-Q. 103. What do you mean by about five inches; five and a half or six?

A. I mean about five inches; not five and a half, nor do I mean six.

×-Q. 104. What was the diameter of the mould in which the first cylinder or blank for this machine was made?

A. About five and three-quarter inches.

×-Q. 105. On or about December 7, 1899, at the office of the Polyphone Co., when you were testing the sound record marked "Douglass Exhibit 1897 Sound Record," don't you remember that Mr. Douglass said while you were counting the number of revolutions at the time when you made them 176 revolutions a minute and after you had asked him before beginning the count if the speed was about right, that Mr. Douglass said during this count that the speed was too slow, that he, the singer, never drawled it out like that?

A. I have no recollection of anything that occurred at that time except what I have put in the statement you have in your hand. I recollect in regard to the speed that I asked Mr. Douglass while speeding up the machine if the speed was about right; and that he replied that it was. I then began counting, made the speed 43 revolutions in 15 seconds or 172 a minute. Mr. Munday made them 180 per

minute. I counted three or four times. The next time I counted it I made I think 44 revolutions to the fifteen seconds, which would be at the rate of 176, and I think the third count was the same. Mr. Munday, I believe, did not announce any count except his first, wherein he estimated that the revolutions were 180 per minute. I announced my conclusions, Mr. Munday announced his, and I do not recollect that Mr. Douglass entered any protest of any kind nor did he suggest trying it at 240 or 200 or any other rate of speed.

×-Q. 106. Do you deny under oath that after you asked Mr. Douglass if that was about right and his reply thereto, "Yes, about," that almost immediately, having listened to a little more of the record, he said "That is too slow, he (meaning the signer) never drawled it out like that?"

A. I neither affirm nor deny your statements. I testify that I have no recollection further than that to which I have already testified and which is incorporated in the statement which I wrote at the time, or within 24 hours of the time.

×-Q. 107. You have stated, in answer to question 52, that after this test of this Douglass Exhibit 1897 Sound Record at a speed which you made 172 or 176, you then speeded the machine up until it was running at about 195 to 200 revolutions per minute; and this was the final or highest speed you tried it. Don't you remember that you stated during this test at 195 to 200 that that was too high, and Mr. Douglass said no, it is too slow or too low?

A. I do not recollect that. I speeded the machine up as far as I could, that is to the limit of the governor, and found the speed to be somewhere in the neighborhood of 195. I think one count I made was 192 instead of 195; I was counting only by 15 seconds and that I formed the impression then that that speed was too high, by a rough guess I should

say anywhere from 10 to 15 revolutions greater speed than that at which the record was made.

(All of the above answer, except the first sentence thereof, is objected to as being wholly irresponsive to the question.)

×-Q. 108. Don't you remember that you stated at this time when this record was being tested at 195 to 200 revolutions that that was too high?

A. I thought so; possibly said so. I don't recollect it, though it is entirely possible that I made that statement. But I positively have no recollection of Mr. Douglass making any other statement about the record after the time he told me that that was about right.

×-Q. 109. Do you deny that Mr. Douglass stated at this time when the machine was running at 195 to 200 revolutions per minute that the speed was too slow or words substantially to that effect?

A. I have no recollection of Mr. Douglass making such a statement at that time.

×-Q. 110. You have stated in answer to question 52 and also again in your answer to ×-Q. 107 that you speeded the machine up as high or far as it would go, the speed then being 195 to 200 revolutions per minute. Are you positive you speeded the machine up as high as it would go?

A. As far in my opinion as that machine could be speeded and still have the governor remain on the machine. The governor balls when I stopped speeding it up had very nearly reached the limit of the iron frame surrounding them. And it is my opinion that if the machine had speeded five revolutions faster the balls would have struck the frame, unless the governor on this Phonograph was provided with a safety collar. If this collar was on the machine also, it

could not have been speeded beyond this point under governable speed, as as soon as the governor sliding collar strikes the safety collar the machine will run away, there being no longer the make-and-break connections in the electric circuit, and the governor becomes simply a fly-wheel and the machine immediately runs to the limit of its speed. These are the reasons that I have stated that I speeded the machine up as far as it would go, as I understand that statement in every case when using or exhibiting talking machines to mean the limit of governable speed.

×-Q. 111. I call your attention to the fact that it has already been proven in this record by several witnesses, who tested the machine in the presence of your own counsel either the day before this test when you were present or a very few days before, that this identical machine which was used by you in your tests of this Douglass exhibit, 1897, sound record was actually speeded up to a speed of 240 revolutions a minute, and will now ask you again if you are positive you speeded the machine up as high as it would go in your test?

(Counsel for Macdonald objects to the question as containing a serious misstatement.)

A. I do not believe the machine was speeded up 240 revolutions while in the condition in which I saw it. What may have been done at any other time I of my own knowledge know nothing. The machine as I saw it, in my judgment, could not have been speeded to 240 revolutions a minute without serious injury to the governors, or under what we call a runaway speed; that is, where the governor is locked and can no longer expand.

×-Q. 112. After this test which you made at a speed of 195 to 200 revolutions per minute, did you try to speed the machine higher?

A. I have already stated that I did not; I considered that I had reached the limit.

×-Q. 113. Since September, 1897, has there been any change in recorders used upon talking machines?

A. There has been a slight modification of the Macdonald recorder since that time; and it is now used upon all talking machines for making records, Phonographs and Graphophones, by both this Company and the National Phonograph Company.

×-Q. 114. What does this change consist in?

A. The change consists in doing away with the clamping ring which was formerly used to hold the diaphragm in place, and in cementing the diaphragm to the rubber gasket and through the rubber gasket to the recorder head. Also in lengthening the heel or rear end of the recorder point holder.

×-Q. 115. It is also made somewhat lighter, is it not?

A. They were made lighter, but this was not for the same use. In the Type U and Type K Graphophones for which I first designed this recorder and made it, the recorder hung against the cylinder at an angle of about 45 degrees. In the later machines for which it was devised for making musical records and which were modifications in some cases of the Phonograph, the recorder was placed almost on top of the record; and to obtain the same pressure upon the point it was therefore necessary to make it somewhat lighter.

×-Q. 116. What effect, if any, has this new style recorder on the loudness and quality of the record as compared with the old style recorders, other conditions being the same?

A. I believe it to be an improvement in this respect, the principal improvement being, however, in the manufacture. For by this means of assembling recorders we can get them very uniform; whereas by the old method of clamping the

diaphragm a little extra pressure of the glass ring would frequently make the recorder work very poorly.

×-Q. 117. When this new style recorder was first brought out it was sold at \$10 as compared with \$5 for the old, was it not?

A. I don't remember. The Columbia Phonograph Co. sell the goods and make the prices to its customers, which I believe vary with the amount that the dealer purchases—that is, the discounts are varying according to the amount of goods purchased.

×-Q. 118. It is a fact, is it not, that the new style recorder makes a materially louder and better record than the old?

A. I think it makes a better record than the old one, or I wouldn't manufacture it.

×-Q. 119. You stated that you showed to Mr. Douglass a disk machine that you made. When did you first show it to him?

A. In 1894, sometime during July; I think somewhere around July, probably within two or three months. I am not very positive in regard to that. I have a distinct recollection of making and showing a disk machine to Mr. Douglass before he went to Europe that year, and of his showing me a disk machine which I think he stated was made in Switzerland, but of this I am not positive. It was a matter to which I attached very little importance, as that disk machine was designed for a toy, but was not thought to be of sufficient value to be manufactured as such.

×-Q. 120. Mr. Douglass showed you his disk machine on the same day, and at the same place here in your factory that you showed him yours, did he not?

A. He did not. The machine that I had made was taken to New York a long while before this; an exhibition was made of it at the Waldorf Hotel and it was then sent

to the Columbia Phonograph Company's offices in Washington.

×-Q. 121. Where did you show it to Mr. Douglass?

A. My impression is that it was shown to him in my office at the factory or at the Waldorf Hotel; but I can't recall and it is possible that it was some other place. I have a distinct recollection of showing this machine to Mr. Douglass or of being present when Mr. Douglass saw the machine. I would like to state here that I never showed anything to Mr. Douglass of my own volition; and that these things were shown to him against my personal desires. Mr. Easton I think accompanied Mr. Douglass on all of these occasions when things were shown to him, or at least in the great majority of such occasions.

×-Q. 122. When and where did Mr. Douglass first show you his disk machine?

A. I think it was after his return from Europe in 1894, and as near as I can locate the time I should say it was in the fall of that year and I think the place was in my office in another part of this factory.

×-Q. 123. Don't you remember that both your disk machine and Mr. Douglass' disk machine were shown here in this factory at the same time and side by side, and that you had only some talking records for your disk machine and that Mr. Douglass had some Leachman singing records for his machine and that you went and got a big horn for use on the Douglass machine? Don't this refresh your recollection in relation to this?

A. It does not. I have no recollection of the disk machine matter further than that which I have stated.

×-Q. 124. Don't you remember that at this time Mr. Easton and Mr. Cromelin were both here with Mr. Douglass and that the two disk machines were shown at the same time here in this factory at Bridgeport?

A. It is possible they were shown together under the circumstances you state, but I again state that I have no recollection of the disk machine matter further than I have stated.

×-Q. 125. Don't you remember that your machine at the time Mr. Cromelin and Mr. Easton and Mr. Douglass came in was in your laboratory in the factory, and that you were at the time working on it; had a man in the machine department turning down some wax disks to make records on; and that you made some talking records in the presence of Mr. Easton, Mr. Cromelin and Mr. Douglass?

A. I have no recollection of this disk matter further than that which I have stated.

×-Q. 126. In the experiment which you have stated you made when you ran the ordinary Graphophone with the ordinary record blank on it at a high speed and when you had Mr. Fisher sing to the machine, at about what speed was the record made—how many revolutions of the mandrel per minute?

A. In case of the tests with Mr. Fisher, I do not know, as both machine were operated without the governor. The speed was very irregular and uncertain. In the case of the tests in my own room with the talking record I ran the machine at a speed which I would estimate at 250 revolutions per minute.

×-Q. 127. At what would you estimate the speed of the machine when you had Mr. Fisher sing?

A. Probably varied from 250 to 600, somewhere in there. I am satisfied it was considerably more than double the ordinary speed—that is, the average.

×-Q. 128. At what speed would you estimate the electric Graphophone was run when you reproduced this record made at the high speed when Mr. Fisher sang?

A. At about the same speed.

×-Q. 129. In the reproduction of this record made when Fisher sang, did you notice any very material variations in the loudness and quality of the record at different parts of it?

A. The record was very irregular, the pitch false; and it was with considerable difficulty that I could obtain a natural reproduction of any portion of it. But where I did obtain a reproduction of a portion of it I observed that there was a material increase both in loudness and quality.

×-Q. 130. A material increase over what?

A. Over the ordinary record.

×-Q. 131. You stated in your answer to Cross Q. 13, referring to the record made at high speed when Fisher sang "there were so many of the elements that I was looking for in the record, and which my experience enabled me to detect, that I was satisfied with the one experiment, and did not ask Mr. Fisher to make any more." What were the elements in the record to which you there referred?

A. In comparison with the ordinary—a louder record, better quality, and lack of blast in the higher tones.

×-Q. 132. During the past five or six years about how often have you seen and talked with Mr. E. D. Easton in relation to talking machine matters?

A. Oh, probably an average of three times a week, possibly twice might cover it. Later years it might have been higher than that.

×-Q. 133. In November or December, 1897, when you say you had some talk or discussion upon the question of duplicating with Mr. Flemming and Mr. A. M. Coyle, and, as you say, you think possibly with Mr. Pierman, what, if anything, was said by you to them, or to either of them, and if so, to which, about increasing the surface speed at which the record was to be made, to any material or particular extent?

A. I have stated that I discussed the question of a better master with these men about this time and expressed my belief that the vibrations were too close together, and that a better record could be obtained by stretching out the vibration. There is only one way of which I know to stretch them out, and that is greater surface speed, and that I suggested to these men. Beyond that I do not think I told them any specific number of inches per minute or rate of revolutions of the mandrel to accomplish this.

×-Q. 134. You did not then suggest to them to what extent you thought the speed should be increased; is that correct?

A. I have so testified several times.

×-Q. 135. And you did not yourself ascertain what the effect would be of materially or greatly increasing the surface speed until after you made your tests with the ordinary Graphophone and ordinary record at successive higher speeds that you have testified you made along in May, June or July, 1898, is that correct?

A. I made no tests of that nature until that time, as I stated.

×-Q. 136. At the time Mr. Douglass, Mr. Babson and Mr. Devine entered the room where "Macdonald Exhibit, First Graphophone Grand," was placed, the machine was in operation, was it not?

A. I think it was not.

×-Q. 137. When was it started?

A. After they entered.

×-Q. 138. Immediately after they entered?

A. Within a very short time after they entered.

×-Q. 139. Prior to Mr. Douglass, Mr. Babson and Mr. Devine coming into the room they were in a waiting room outside, were they not?

A. I don't know where they were.

×-Q. 140. Who went after them?

A. I don't know.

×-Q. 141. Isn't it a fact that Mr. Easton went after them, invited them into this room and came in with them when they first entered?

A. I don't recollect how they were gotten into the room; it is possible that is the way it was done; I don't recollect how it was done.

×-Q. 142. Mr. Easton was in here with you just prior to the time when Mr. Douglass, Mr. Babson and Mr. Devine entered?

A. He was.

×-Q. 143. And you had exhibited the machine to him?

A. I had.

×-Q. 144. And it was he who suggested exhibiting its operation to them?

A. I think that is right.

×-Q. 145. Who suggested covering the machine with a paper before inviting Mr. Douglass, Babson and Devine into the room?

A. Mr. Easton.

×-Q. 146. Please state exactly what he said, and what you said in relation to this as nearly as you can remember the words?

A. It was at his suggestion the machine was covered. I cannot state the words any closer than that.

×-Q. 147. Did you ask him why he wanted the machine covered?

A. No, sir; I am quite confident I did not.

×-Q. 148. Did he tell you why?

A. I think he did.

×-Q. 149. What reason did he state?

A. To make the effect more impressive.

×-Q. 150. The positions which you have marked in ink

of the several persons in the room on this Blue-Print Drawing marked "Macdonald's Exhibit, Diagram of Manager's Office, Blue Print Drawing," shows your recollection of the position of the several persons at the time the machine was reproducing the first song or selection on the record; is that correct?

A. It is.

×-Q. 151. After the reproduction of this first song or selection was completed did the parties remain in the same positions while you were removing the horn and the paper, and after that time?

A. I do not know. After completing the reproduction I turned around with my back to the audience and gave my attention to the machine; possibly they changed these positions slightly; it is possible they changed these positions slightly; my impression is that they did not change them very materially for several minutes after the close of the first reproduction.

×-Q. 152. During the first reproduction is it your recollection that Mr. Phillips was in the room?

A. It is.

×-Q. 153. Do you recollect anything that Mr. Fisher said after the close of the first reproduction?

A. I do not now recall anything that Mr. Fisher said at that time. My attention at this time was particularly centered on Mr. Babson and Mr. Douglass.

×-Q. 154. Why was your attention at this time particularly directed to Mr. Babson and Mr. Douglass?

A. Because they were strangers, or at least Mr. Babson was, and because I did not regard them as friendly to the interests of the American Graphophone Company, and had not so regarded them for a number of years. My impressions upon that point were very strong at that time and for a long time previous, I had what was to me positive knowl-

edge in warranting me in that belief. For that reason paid particular attention to them.

×-Q. 155. Did you then expect Mr. Douglass or Mr. Babson to claim the Graphophone Grand as theirs, or either?

A. I don't know just what my expectations were, but for the reasons, as before stated, my attention was acutely directed to them.

×-Q. 156. You would not have been much surprised to have heard Mr. Douglass claim the invention of the Graphophone Grand as his own?

A. I would not be surprised to hear that Mr. Douglass claims the invention of the entire talking machine art.

Adjourned until tomorrow morning at 9.30 o'clock.

SATURDAY, *January 20, 1900*—9.30 o'clock, A. M.

Met pursuant to adjournment of yesterday.

Present: Same parties as previously.

Cross-examination of Thomas H. Macdonald, continued.

By Mr. ADCOCK:

×-Q. 157. Where is the Mr. Pierman you have mentioned in your testimony, and what connection, if any, has he with the American Graphophone Company?

A. He is in charge of the duplicating machines in this factory; possibly he would be rated as a foreman. I designate him as Duplicating Machine Inspector.

×-Q. 158. Is he here now?

A. He is.

×-Q. 159. By the name master records is meant in the talking machine business sound records used in the manufacture of duplicates. Is that correct?

A. That is correct.

×-Q. 160. In making a duplicate on an ordinary two and three-sixteenths inch blank by use of a master record of large or five-inch diameter made on the Grand, the surface speed at which the duplicate would be made would be the ordinary surface speed of 120 revolutions of the ordinary blank per minute, or about 824 inches surface speed per minute. Is that correct?

A. This speed of the small blank was intended to be 120 revolutions per minute, which would give approximately the surface speed mentioned for the duplicate.

×-Q. 161. In reproducing the sound record recorded upon the duplicate thus made at what speed is the 2 3-16 duplicate run?

A. 120 revolutions per minute.

×-Q. 162. I notice on the diagram of this room, marked Macdonald's Exhibit, Diagram of Manager's Office, Blue Print Drawing, a circle with a cross in it marked Mr. Fisher. Is it your recollection that Mr. Fisher was present during the first reproduction on Macdonald's Exhibit, First Graphophone Grand, on October 18, 1898, made in the presence of yourself, Mr. Douglass, Mr. Babson, Mr. Easton and Mr. Devine?

A. That is my recollection.

×-Q. 163. Are you positive he was present?

A. I am positive he was present, to the best of my recollection and belief; I am as positive as I can be.

×-Q. 164. Are you positive that Mr. Phillips was present at this time?

A. I am positive that Mr. Phillips was present.

×-Q. 165. On October 18, 1898, after Mr. Douglass had showed and exhibited his polyphone in operation, did you ask Mr. Easton, in the presence of Mr. Douglass, if you should bring out and show a polyphone or polyphone attachment that you had made?

A. I did.

×-Q. 166. And did you bring it out and show it?

A. I did not, I think; it might have been shown; my impression is it was not.

×-Q. 167. That polyphone which you then had had three reproducers arranged in clover leaf fashion with their reproducing points near together and tracking or following one another in the same record groove; did it not?

A. I made two so-called polyphones for Mr. Douglass, by Mr. Easton's instructions, and after a conversation with Mr. Douglass a number of times prior to this date. One of these was made with two reproducers, side by side, with the reproducing points set off to the right and left on small levers so as to bring the points in the groove together. The other was made as you have described it, except that it was made on the principle of the Phonograph reproducer, instead of the Graphophone. Whether these were shown to Mr. Douglass at this time or any previous period I don't remember; my impression is that they have been shown to him, and it is possible that one of them was shown to him at this time as I had them both in the laboratory at the time. Neither of them were very successful and I was not much interested in the polyphone subject. My recollection of it was not as clear as that in regard to the Grand in which I was vitally interested.

×-Q. 168. When did Mr. Easton instruct you to make these two polyphones; each of them?

A. Mr. Easton instructed me to make two constructions of polyphones, and gave me a number of descriptions and letters of Mr. Douglass in which Mr. Douglass was endeavoring to get this company take up and exploit this device. I would imagine it was fully a year before this time that the first discussion of it took place. My judgment of it at that time was that it was impracticable, and I urged Mr.

Easton not to take it up. During the summer sometime, I don't recollect it now, these two models were made. One containing the Graphophone principle was made after a consultation with Mr. Douglass and a description to him of what I intended to do, but it was not successful; that is, it could not be made to track any better than the device which he had sent on to the factory as a model.

×-Q. 169. Did Mr. Easton ever tell you about Mr. Douglass' polyphone in which three or two or more recorders were arranged side by side, at a distance apart, so as to simultaneously record the same matter upon a record blank and in which three or two or more reproducers were similarly arranged to simultaneously reproduce the same matter? Ever tell you or show you any of Mr. Douglass' letters describing this?

A. He did not.

×-Q. 170. Have you ever filed any application or applications for patent on a polyphone or talking machine similar to that described in my last question?

(The witness is instructed not to answer any questions relating to pending applications for patent with the exception of the one involved in this interference.)

(Counsel for Douglass calls the attention of Macdonald's counsel to the fact that this witness was asked on his direct examination whether he had ever patented or applied for any patents on anybody else's inventions than his own, and that the cross-question is strictly germane and is intended to ascertain, if possible, the real truth in relation to this, and it is also pertinent to the general credibility of the witness' testimony, and notice is given that if the witness refuses to answer the question a motion will be made to exclude the witness' whole deposition from the record.)

(Counsel for Macdonald requests counsel for Douglass to refrain from making speeches and arguments on the record, and to proceed with the cross-examination.)

A. I decline to answer the question.

×-Q. 171. Have you ever filed any application or applications for patent on or involving either of the two polyphone constructions described in your answer to ×-Q. 167.

(Mr. MAURO: Same instruction to the witness.)

(Mr. ADCOCK: Same notice repeated.)

A. I decline to answer.

×-Q. 172. Where are the letters of Mr. Douglass which Mr. Easton gave you, which are referred to in your answer to Cross-Q. 168?

A. They were returned to Mr. Easton.

×-Q. 173. In your answer to ×-Q. 16 you said in relation to the ideas involved in Macdonald's Exhibit, First Graphophone Grand, "I did not reveal them to anybody except to Mr. Easton, and I did not tell Mr. Easton further than that I would explain the work upon which I was engaged, which is reported in the reports of the laboratory until the exhibition of October 18, 1898. Are the laboratory reports you there referred to in writing?

A. The laboratory report I there refer to is the pay-roll; the amount of money expended in laboratory work. The explanation of inventions, of experiments, and other laboratory work is made to Mr. Easton verbally.

×-Q. 174. Then these reports of the laboratory themselves alone do not show anything about any particular line of work or experiment or invention; is that correct?

A. There is no regular written report of the work in the laboratory made to any one. The only descriptions or reports of the work that are made are such as I choose to make

from time to time to Mr. Easton alone, either in the form of letters or verbally, or such as Mr. Easton may request from time to time either verbally or by letter.

×-Q. 175. Question repeated.

A. The pay-roll does not define any particular line of work; it merely expresses the gross expenditure for the week chargeable to laboratory work.

×-Q. 176. In your answer to ×-Q. 10 you refuse to produce certain drawings, referred to as follows in your preliminary statement: "In January, 1898, I designed and had drawings made of a machine intended to embody this conception along with other ideas." Please state what those drawings show?

(Objected to as before, and witness is instructed not to answer questions touching any unpatented inventions not involved in this interference.)

A. I decline to answer.

×-Q. 177. Those drawings show nothing in relation to the invention involved in this interference.?

A. There are principles involved in that drawing which are also in the Graphophone Grand.

×-Q. 178. The question is what the drawings show, not what you may imagine they involve. I will again ask you whether the drawings themselves show anything or nothing of the invention forming the subject-matter of this interference?

(The witness is instructed that he may answer fully as to anything shown in the drawings referred to which relates in any manner to the invention in controversy in this interference, and counsel for Douglass is again reminded that he will be bound by the answers of the

witness, this matter not having been touched upon in the direct examination.)

(Counsel for Douglass states that he understands that Mr. Macdonald's alleged inventorship of the invention, forming the subject-matter of this interference, as well as Mr. Macdonald's alleged date thereof, has been at least remotely touched upon in the direct examination of this witness, and that the cross-examination is strictly germane and counsel for Douglass again disclaims any intention of making this witness his own for any purpose, or being bound by his statements.)

A. The drawings show a cylinder four inches in diameter intended to be driven at about 120 revolutions per minute.

×-Q. 179. Will you now please produce the drawings, so that I may verify your last statement by inspection of them.

(Counsel for Macdonald repeats his instructions and protests against further useless reiteration which produces no result except trouble and expense to the contestants and is unable to see the object of prolonging the deposition which counsel for Douglass has twice said on the record he intends to move to have stricken off.)

A. I decline to produce it.

×-Q. 180. Do you know, Mr. Macdonald, that you have been sworn to tell the truth and the whole truth, in this case?

A. I do.

×-Q. 181. How long is the mandrel in the drawings you refer to and declined to produce?

A. I decline to answer it; the length of the mandrel is not material to the subject-matter of this interference.

×-Q. 182. The length of the mandrel may be very

material to the issues in this case and you do not happen to be the judge of the materiality of the facts to which you may testify. Please state the length of the mandrel shown in these drawings?

(Counsel for Macdonald assumes the entire responsibility for the refusal of the witness to answer the questions, which he has properly refused to answer, and instructs the witness further to pay no attention to any remarks, or anything but interrogatories emanating from counsel for Douglass.)

A. I decline to answer.

×-Q. 183. Who made these drawings?

A. I made the original drawings.

×-Q. 184. To whom, if anyone, did you ever show them?

(The witness is instructed not to answer.)

A. I decline to answer.

×-Q. 185. Where is the sound record which you made on the ordinary size blank when Fisher sang, and when the ordinary Graphophone or Phonograph on which it was made was speeded up as high as it would go by throwing off the governor belt, and concerning which you have testified?

A. I don't know.

×-Q. 186. Is it in existence?

A. I don't know.

×-Q. 187. Have you made any search for it?

A. I have not.

×-Q. 188. Will you please do so, and produce it, if possible?

A. I can't produce it; I don't know where it is.

×-Q. 189. The question was if you would make a search for it?

A. Yes, I will search for it.

×-Q. 190. Where are the sound records which you made in your experiments on the ordinary size blank and ordinary Graphophone by speeding it at successive steps to higher speeds?

A. I don't know.

×-Q. 191. Are they, or any of them, in existence?

A. I think not.

×-Q. 192. What do you think has become of them?

A. I don't know.

×-Q. 193. Have you any recollection of destroying or obliterating them?

A. I don't recollect.

×-Q. 194. During the noon adjournment will you make a search for them?

A. I will search for them.

×-Q. 195. And produce them if you find them?

A. I will search for them.

×-Q. 196. The question was if you would produce them if you could find them, or any of them?

A. I will produce them if I can find them.

×-Q. 197. You stated that after making a series of experiments with the ordinary Graphophone by speeding it up at successive steps to higher speeds you had made and put upon the motor first a larger driving pulley, and then a still larger driving pulley, and then repeated the experiment with each of these larger driving pulleys. Who made those pulleys?

A. I don't know.

×-Q. 198. Do you still have the pulleys?

A. I don't know whether I have or not. The pulleys used were regular pulleys; they were not made for the occa-

sion. They were pulleys which were used in the various parts of the different Graphophones, where the belt was used.

×-Q. 199. Was the drawing marked "Macdonald's Exhibit, Pencil Drawing" begun or completed on August 12, 1898, the date it bears?

A. It is the usual custom to mark a drawing of this description with the date of its completion. I think this is the date of the completion of the drawing.

×-Q. 200. About how long was this drawing in course of making?

A. Two or three weeks, possibly longer; possibly shorter; it would not vary much two or three weeks, a fair estimate.

×-Q. 201. How long would it take Mr. Coyle, the draftsman, to make it; how many hours work?

A. He probably could copy that in two hours. The original drawing would take him, I think about the time I have stated, as the work merely shown by pencil marks upon the paper is the smallest part of the labor involved in producing an original drawing. The drawing was made from rough sketches which I submitted to Mr. Coyle, from time to time, and was not completed at one operation of the draftsman; probably occupied fully the time I have stated, two or three weeks.

×-Q. 202. Working how many hours a day?

A. I don't know how many hours a day.

×-Q. 203. How many hours a day is Mr. Coyle accustomed to work?

A. His hours were from 9 to 5, with an hour for dinner.

×-Q. 204. Do you mean to state, under oath, that to the best of your judgment it would require Mr. Coyle about two or three weeks steady work, working 8 hours a day, to produce the pencil drawing marked "Exhibit Pencil Drawing."

A. I did not so state.

×-Q. 205. Your exact statement in relation to this in answer to Cross-Q 201 was "The original drawing would take about the time I have stated," which was stated in your previous answer to be about two or three weeks. What is your judgment as to how long it would take Mr. Coyle to make this original pencil drawing, doing, of course, all the work involved in producing an original drawing?

(Objected to as immaterial and a mere repetition, and a waste of time.)

A. It might take Mr. Coyle two hours; it might take him two years; it would depend entirely upon the data that I gave him for the various details of the drawing and upon my convenience to approve or disapprove those details after he had submitted them to the paper. As a matter of fact this drawing did take, to the best of my recollection, between two and three weeks, from the time it was begun until it was completed. I do not mean to say, nor have I said, that Mr. Coyle went to work upon this drawing at nine o'clock in the morning and worked until 5 o'clock in the evening, nor did he do so. He worked upon it at such times as I gave him the data to work on, and finally, to the best of my judgment, produced this finished drawing on August 12. I required no further changes in it at that date, and I considered that it was finished at that time.

×-Q. 206. Have you the original sketches?

A. I have not.

×-Q. 207. Have you the original sketches which you gave to Mr. Coyle to make this drawing from?

A. I have not.

×-Q. 208. Where are they?

A. They were destroyed.

×-Q. 209. About how long after the experiment which

you made when Fisher sang, and removed the governor belt, was it before these drawings were begun?

A. A month, six weeks, two months; somewhere in there.

×-Q. 210. You then have no very definite recollection about the length of time between these two events?

A. I have stated my recollection.

×-Q. 211. Might it not have been only one week?

A. It could have been ten minutes, but I don't think it was.

×-Q. 212. Have you applied for and obtained a patent of what is called the Eagle Graphophone?

(Objected to as immaterial.)

A. I have.

×-Q. 213. Please state the number or date of that patent?

A. I don't remember either date or number.

×-Q. 214. Do you know Frank L. Capps?

A. I do.

×-Q. 215. How long have you known him?

A. Two or three years.

×-Q. 216. Did he ever work for the American Graphophone Company?

A. He did not, according to my knowledge; he never worked for the American Graphophone Company under my charge.

×-Q. 217. At one time he was engaged in making sapphire recorder or reproducer points for talking machines, was he not?

(Objected to as immaterial.)

A. He attempted to make a reproducer ball to be used on talking machines, and I believe some of them were used. It was not successful. A great many thousands of them are now on hand by those who purchased them; they are worthless for the purpose intended.

×-Q. 218. Do you know how he made them?

A. I do.

×-Q. 219. How?

A. He made them out of rough sapphire by the use of a carborundum wheel. He then polished them in the ordinary manner in which balls are polished in the art by rolling them in grooves in discs, running concentric with each other—that is, both discs running on the same axis. A method well known and used in the making of bicycle balls. These little balls were then set in the end of a brass rod, either by cementing them there or clamping them, and using this as a reproducer point.

×-Q. 220. You have applied for and obtained a patent No. 628,544, dated July 11, 1899, on a machine for making sapphires for talking machines, have you not?

A. I have.

×-Q. 221. And you are aware, are you not, that Mr. Frank L. Capps claims that that invention is his?

A. I do not know what Mr. Capps claims. He never has so claimed it to me, nor is the invention in any particular the invention or the process which I have described, and the only one which Mr. Capps ever showed or described to me.

×-Q. 222. About how long was it after the disc machine was made, which you have testified you made, before you showed it to Mr. Easton, Mr. Cromelin, Mr. Lyle, and other employes of the Columbia Phonograph Company in New York, as you have stated in your answer to direct question No. 78?

A. I don't know; it was in the summer of 1894, or in the spring of 1894, after the machine was completed.

A recess was here taken until 1 o'clock, P. M.

After recess.

Cross-examination of Thomas H. Macdonald continued.

By Mr. ADCOCK :

×-Q. 223. About when was the disk machine completed ?

A. Some time in the spring of 1894.

×-Q. 224. Give the date, as nearly as you can ?

A. I have given it as nearly as I can.

×-Q. 225. How soon after it was completed was it sent to New York and Washington ?

A. I do not remember.

×-Q. 226. Give your best recollection of the length of time between the completion of the disk machine and the sending of it to New York and Washington ?

A. It was sent down some time in the summer of 1894 ; possibly July or August ; I can't fix it any better than that.

×-Q. 227. Where was this disk machine when it was shown to all of the employés in the offices of the Columbia Phonograph Company in New York, as you have stated in answer to direct question 78.

A. It was shown at the Waldorf Hotel and at the office of the company.

×-Q. 228. In New York ?

A. In New York.

×-Q. 229. And this was within a few months after the machine was completed ?

A. It was within a few months after the machine was completed.

×-Q. 230. Where were the offices of the Columbia Phonograph Company in New York when this disk machine was there shown to the employés ?

A. I think it was at the down-town office.

×-Q. 231. Where was that ?

A. It was on Broadway ; I have forgotten the exact number ; somewhere near Cortlandt street.

×-Q. 232. When did the Columbia Phonograph Company first begin to have offices in New York on Broadway, somewhere near Cortlandt street ?

A. I don't know.

×-Q. 233. You can find out this fact, can you not ?

A. I presume I can obtain this information.

×-Q. 234. Please do so, and state it.

(Objected to as calling for secondary and incompetent evidence).

A. I cannot do so at the present time.

×-Q. 235. Don't you remember that the Columbia Phonograph Company first began to have offices in New York on Broadway near Cortlandt street about the first of January, 1895, or the latter part of December, 1894 ?

A. I do not remember that.

×-Q. 236. Do you deny that this is the fact ?

A. I do not remember it.

×-Q. 237. You have stated that you cannot ascertain at the present time the date when the Columbia Phonograph Company first began their offices on Broadway in New York. Will you please ascertain and state this fact before the close of your deposition ?

(Same objection, and counsel for Douglass is informed that the date will be ascertained for him from persons who have certain knowledge of it.)

×-Q. 238. Since the adjournment before noon have you searched for the sound records made in your experiments, as provided before the adjournment ?

A. I have.

×-Q. 239. Did you find any of them ?

A. I did not.

×-Q. 240. You were unable to find any of them ?

A. I was.

X-Q. 241. Referring again to the drawings which you refused to produce, and which you stated show a cylinder 4 inches in diameter and which are referred to in your preliminary statement as having been made in January, 1898, please state whether those drawings show two or more recorders or reproducers arranged for operating on or engaging at the same time the cylinder?

(Witness is instructed not to answer the question.)

A. I decline to answer.

(Mr. ADCOCK: The notice heretofore given is repeated.)

X-Q. 242. In your testimony you referred several times to a laboratory. Is that the laboratory of the American Graphophone Company?

A. It is.

X-Q. 243. It is in the factory and part of the factory, is it not?

A. The room is in the factory and is a part of the factory building.

X-Q. 244. Under whose charge is the laboratory and laboratory work?

A. It is under mine.

X-Q. 245. You have special charge of the laboratory and experimental work of the American Graphophone Company?

A. I have entire charge of all experimental work and all manufacture, and everything pertaining to the factory of the American Graphophone Company.

X-Q. 246. On Mr. Easton's visits to the factory are you accustomed to discuss and talk with him about the labora-

tory and experimental work, as well as other matters in the factory?

A. Yes.

X-Q. 247. Do you know Mr. R. F. Cromelin who is here present; and if so, about how long have you known him?

A. I do.

X-Q. 248. What connection, if any, has he with the American Graphophone Company?

A. I have known him about ten years; he is a member of the board of directors of the American Graphophone Company. The date of his election to the board of directors I do not know; I should say it was five or six years ago.

X-Q. 249. He is now, or used to be vice-president, was he not?

A. He is not now vice-president.

X-Q. 250. I understand that your attorney, Mr. Philip Mauro, will be a witness in your behalf in this case; at least I think his name has been included in the notice. Please state about how long have you known him.

A. About seven years.

X-Q. 251. And what is, and has been, his connection with the American Graphophone Company, the assignee of your application involved in this interference?

A. He has been patent counsel for this company during that period; he is also a member of the board of directors, and has been so for about three or four years.

X-Q. 252. If you have any assistants or workmen who are under you in the laboratory or experimental work of the American Graphophone Company, please give their names, say covering a period of two years.

A. Mr. Fleming, Mr. Coyle, Mr. Osborne, Mr. Plummer, Mr. John Norton, Mr. E. Norton, probably 35 or 40 others, whose names I do not now recall. All these have not been

engaged exclusively on experimental work, but have been engaged upon it at periods during that time.

×-Q. 253. Who, if any one, besides yourself, was present when you made your first test of the machine marked "Macdonald's Exhibit, First Graphophone Grand"?

A. I don't recollect.

×-Q. 254. When and where was that first test made.

A. In the laboratory; some time in September, 1898, possibly in the latter part of August.

×-Q. 255. In your preliminary statement you give the date of when the machine was completed and tested as about the 1st of October, 1898.

A. Somewhere along there—September or October—it might have been about the 1st of October.

×-Q. 256. Besides yourself, who was the first person who heard a reproduction made on this machine?

A. I don't know.

×-Q. 257. Are you positive that any one outside of yourself heard it prior to October 18, 1898, when you first exhibited it in operation to Mr. Easton privately and then subsequently on the same day to Mr. Douglass and others?

A. I think Mr. Osborne, the workman who assembled the machine and finally completed it, and Mr. Coyle, the draftsman, listened to some of the dictations I made, but just exactly when, I can't recall.

×-Q. 258. Do you have the first sound record made on this machine now?

A. I have not.

×-Q. 259. Have you any sound record that was made on it prior to October 18, 1898?

A. I have not.

×-Q. 260. Do you know if any such are in existence?

A. I do not know of any in existence.

Redirect Examination by Mr. MAURO:

Re-D. Q. 1. Please look at the drawings which you produced at the request of Mr. Adcock and which are marked "Macdonald's Exhibit, Pencil Drawing 1896-97, Nos. 1 and 2" and tell me the dimensions of the blanks on each drawing?

A. The drawing No. 1 is intended to be about 4 inches in diameter, and 13 inches in length. On drawing No. 2, the blank is to be 5 inches in diameter and about 9 inches in length.

(Question and answer objected to as incompetent, inadmissible and irrelevant.)

Re-D. Q. 2. Are the blanks shown in each drawing?

(Same objection.)

A. The blank is shown in each drawing.

Re-D. Q. 3. What is the scale of the drawings?

(Same objection.)

A. It is full size, that is, 1 inch upon the drawing intended to be 1 inch in the finished machine.

Re-D. Q. 4. What is your practice in drawing machines or parts in respect to the scale?

(Same objection.)

A. I always make them full size.

Re-D. Q. 5. You stated in answer to a cross-interrogatory that you had discussed the machine shown in these drawings with your brother. Where does that brother live?

(Same objection.)

A. He is the bookkeeper of the Columbia Phonograph Company in San Francisco, California.

Re-D. Q. 6. Was he here on a visit at the time you discussed it with him?

(Same objection.)

A. He was.

Re-D. Q. 7. When was that visit and how long did it last?

(Same objection.)

A. He came here, I think in the fall; about the middle, possibly the 1st of November of 1896, and went back to California in February, I think. He was here during about three months.

Re-D. Q. 8. You have stated that between the adjournment on Thursday and the resumption of proceedings on Friday morning you passed five or six hours talking with me. Please state how much, if any of this period, was devoted to talking about the testimony in this case?

A. About five minutes; possibly ten. I don't believe it would exceed at the outside, ten minutes.

Re-D. Q. 9. Is the modified Macdonald recorder, which is now used in making musical records, sold generally with ordinary types of machines, or is it a limited and special product?

A. It is a limited product, specially sold or furnished when specially ordered with machines.

Re-D. Q. 10. What recorder is used in the majority of cases?

A. The type patented by me in 1894.

Re-D. Q. 11. Why was no motor shown in Exhibit Pencil Drawing and Exhibit Blue-Print Drawing?

(Objected to as incompetent.)

A. Because I intended to use the ordinary types of motor upon this form of machine.

(The answer is objected to as incompetent and inadmissible, and because the motives and intentions of the witness are not evidence.)

Re-D. Q. 12. For what purpose were those drawings prepared?

(Same objection.)

A. For the purpose of building this main machine, for the purpose of making improved master records.

Re-cross Examination by Mr. ADCOCK:

Re-X-Q. 1. The new style recorder is universally used and furnished with the Graphophone Grand and is furnished with this style of recorder without being specially ordered; is it not?

A. It is.

Re-X-Q. 2. The new style of recorder is also solely used by the American Graphophone Company in making masters for manufacturing duplicates; is it not?

A. I think it is.

Re-X-Q. 3. It is also so used by the National or Edison Phonograph Company in making masters for manufacturing duplicates?

A. I have heard so; I have never been in their place.

THOMAS H. MACDONALD.

FRANK H. OSBORNE.

And thereupon FRANK H. OSBORNE, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says, in answers to questions by Mr. MAURO, as follows :

Question 1. State your name, age, residence and occupation ?

Answer. Frank H. Osborne ; 407 Wood avenue, City ; occupation, toolmaker ; age, 35 in September.

Q. 2. Mr. Osborne, please look at the machine marked Exhibit First Graphophone Grand, and state whether you ever saw it before ?

A. Yes, sir.

Q. 3. Did you have anything to do with the making of it, or putting the parts together ?

A. I did.

Q. 4. Did you make all the parts ?

A. No, sir.

Q. 5. Please state what parts you made, and what were already made ?

A. The mandrel and shaft complete, less the main pulley. The back shaft in part, but not in whole. The arm in part, but not in whole. I had the assembling of it and in the drilling line I suppose I had about half of it.

Q. 6. In making parts of that machine and in assembling it did you work by any drawing or drawings ?

A. I did ; yes, sir.

Q. 7. Please look at the drawings I now hand you and state if they, or either of them, are or is the drawings or drawing from which you worked ?

A. This one is the drawing ; the white one.

(It is noted that witness refers to Macdonald Exhibit, Pencil Drawing.)

Q. 8. State when you began to work on that machine ?

A. About the middle of August, 1898.

Q. 9. State, as nearly as you can, when the machine was first put together in such condition that it could be used for making or reproducing a sound record ?

A. About the last of September ; about the last week, I suppose.

Q. 10. Have you anything to go by in fixing this period ?

A. Yes, sir ; I have two things. September 16 a friend of mine died ; at that time the machine was nearly completed.

Q. 11. What other thing have you to go by, if any ?

A. Also the time that we commenced working Saturdays ; that is, our department.

Q. 12. When was that ?

A. It was before October 15.

Q. 13. In what condition was the machine at that date ?

A. October 15 ?

Q. 14. Yes.

A. The machine at that time had gone beyond the experimental stage and the second machine was started.

Q. 15. Did you ever hear any records made or reproduced on that machine ?

A. Yes, sir.

Q. 16. What was the first occasion, if you remember ?

A. Well, do I understand you to mean a full record or just a trial, just an experiment ?

Q. 17. Either a full record or part of a record, or an experiment ?

A. I don't understand you.

Q. 18. What I want to know is when you first saw and heard that machine used for the purpose either of making a record or part of a record on it or reproducing a record or part of a record from it ?

A. About the last of September, 1898.

Q. 19. State what was done at that time and by whom?

A. The first experiment was made by T. H. Macdonald between the hours of 5 and 6 o'clock P. M. The first record or part of a record was what we call "Casey at the Bat."

Q. 20. Was that record or part of a record made in your presence?

A. Yes, sir.

Q. 21. Was it also reproduced in your presence?

A. It was.

Cross-examination by Mr. ADCOCK:

(Mr. ADCOCK: The testimony of the witness is objected to as incompetent and inadmissible in so far as it is contrary to the preliminary statement of Macdonald.)

×-Q. 1. Before this first trial in your presence of the machine, do you know if it had been tried before?

A. Not in my presence.

×-Q. 2. Had the machine been tried before in your presence or out?

A. Not in my presence.

×-Q. 3. Do you understand that that was the first trial of that machine?

(Objected to as incompetent; the witness is only called upon to testify to matters within his knowledge.)

A. Nothing was said in my presence of its being the first trial.

×-Q. 4. Was anything said in your presence about there having ever been any previous trial of the machine?

A. Not that I remember.

×-Q. 5. Who else besides Mr. Macdonald was present?

A. I could not say positively.

×-Q. 6. Was any one besides yourself and Mr. Macdonald?

A. I could not say positively.

×-Q. 7. Give your best recollection of it?

A. Possibly two others—in the same room; that is.

×-Q. 8. To the best of your recollection who were they?

A. Mr. M. Plummer, Mr. A. Haug.

×-Q. 9. What, if anything, was said, in relation to the reproduction made by the machine?

A. Mr. Macdonald simply pronounced it satisfactory—very satisfactory.

×-Q. 10. What did you say?

A. I remember making no remark.

×-Q. 11. Do you remember any remark made by Mr. Plummer or Mr. Haug?

A. No, sir.

×-Q. 12. While this machine was in course of construction how was it named or known or called?

A. It was called the Graphophone Grand. We in the laboratory called it the G. G.

×-Q. 13. G. G. stood for Graphophone Grand?

A. Yes, sir.

×-Q. 14. Was the name of any person connected with it; and if so, whom?

A. Connected with the machine? Not that I know of.

×-Q. 15. Did you ever hear it designated as a machine of any particular person?

A. That is, as a particular person's design?

×-Q. 16. Yes.

A. I always understood it was Mr. Macdonald's idea; yes, sir.

×-Q. 17. Did you ever hear it called the sewer-pipe machine?

A. No, sir.

×-Q. 18. Did you ever hear any machine called the sewer-pipe machine?

A. No, sir.

FRANK H. OSBORNE.

Adjourned until Monday, January 22, 1900, at 10 o'clock,
A. M.

JANUARY 22, 1900.—9.30 o'clock A. M.

Met to pursuant to adjournment of Saturday.

Present: Same parties.

MILLARD F. PLUMMER.

And thereupon MILLARD F. PLUMMER, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says, in answer to interrogatories by Mr. MAURO, as follows:

Question 1. State your name, age, residence and occupation?

Answer. My name is Millard F. Plummer; my residence is Bridgeport, 979 Hancock avenue; I am a tool-maker by trade; I was born the 11th of November, 1852.

Q. 2. Where are you working now?

A. In the laboratory of the Graphophone Company.

Q. 3. When did you begin to work in the laboratory?

A. The 29th day of August, 1898.

Q. 4. When you entered the laboratory was there a special machine under construction at that time?

A. Yes, sir.

Q. 5. What machine was it?

A. The machine that is here on the table, I recognize it.

Q. 6. Do you mean the machine marked "Macdonald's Exhibit, First Graphophone Grand"?

A. Yes, sir; that is the machine.

Q. 7. When was that machine completed, if you know, so far as to be used or tested?

A. The latter part of September.

Q. 8. In the same year?

A. Yes, sir.

Q. 9. Were you present at any time when a record or part of a record was made on that machine and reproduced?

A. Yes, sir.

Q. 10. When was it?

A. Well, it was—do you mean the time of day?

Q. 11. I mean the date as near as you can fix it?

A. I would say it was the last week of September, as near as I can recollect.

Q. 12. Who made the record?

A. Mr. Macdonald.

Q. 13. Who worked on the machine?

A. Mr. Osborne—Frank H. Osborne.

Q. 14. In fixing the time of the construction of that machine have you anything to go by?

A. The fact that I was making a set of machines and recollect about the time I worked on them. I had nearly finished the work of machines that I was making.

Cross-examination:

×-Q. 1. Who else was present besides yourself and Mr. Macdonald at the time you heard a record made and reproduced?

A. Mr. Frank Osborne.

×-Q. 2. What time of day was it?

A. It was between 5 and 6 o'clock.

×-Q. 3. Was that the first time?

A. The first time that I had heard it.

MILLARD F. PLUMMER.

EUGENE E. NORTON.

And thereupon EUGENE E. NORTON, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says, in answer to interrogatories by Mr. MAURO, as follows:

Question 1. State your name, age, residence and occupation.

Answer. E. E. Norton; age 43; residence in Nichols, town of Trumbull; occupation, mechanical engineer.

Q. 2. Where are you employed at present?

A. American Graphophone Company.

Q. 3. In what capacity?

A. Mechanical engineer.

Q. 4. In what department of the factory?

A. Mechanical engineering department.

Q. 5. Please look at the drawings I now show you, and which are marked "Macdonald's Exhibit Pencil Drawing, 1896-7, No. 1 and No. 2," and state whether you ever saw them before, and if so, when you first saw them.

A. Saw them in the fall of 1896, to the best of my recollection.

Q. 6. By what, if anything, do you fix that date?

A. I remember it in this way: that at that time Mr. Macdonald's brother was here from California; that was about the time we started to make our A machine; that is what I have to go by—that he was here at that time.

Q. 7. Who made those drawings, if you know?

A. I think Mr. T. H. Macdonald made them.

Q. 8. Do you know what they were made for?

A. I don't just know what they were made for at the time, only for a large cylinder machine for exhibition purposes.

Q. 9. Did you remember the existence of those drawings, and did you have anything to do with looking them up recently?

A. Yes, sir.

Q. 10. State the facts in that connection, please.

A. I remember when this question came up with regard to the Graphophone Grand; I remember that we had these drawings; we looked them up and found them on file. That is about all I know about them.

Cross-examination by Mr. ADCOCK:

(Mr. ADCOCK: The testimony of the witness is objected to as incompetent and inadmissible if it is attempted to be used for carrying the date of Macdonald's alleged invention back of the date given in his preliminary statement.)

×-Q. 1. What is the size of the cylinder in the A machine to which you referred in answer to question 6?

A. $2\frac{1}{4}$ or $2\frac{3}{16}$ inches; I couldn't say positively.

EUGENE E. NORTON.

J. J. FISHER.

And thereupon J. J. FISHER, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says, in answer to interrogatories by Mr. MAURO, as follows:

Question 1. State your name, age, residence and occupation?

Answer. John J. Fisher; age, 33 years; residence, Bridgeport; occupation, vocalist.

Q. 2. Have you ever made sound records on the machine which is before you, and which is marked "Macdonald's Exhibit, First Graphophone Grand"?

A. Yes, sir.

Q. 3. When did you first make a sound record on such machine?

A. I don't remember the exact date of singing to this machine.

Q. 4. Where was it?

A. In this room.

Q. 5. Could you state the month?

A. No, sir.

Q. 6. Who was present besides yourself?

A. Mr. Easton, Mr. Devine, Mr. Macdonald, Mr. Phillips, Mr. Douglass. That is all I remember.

Q. 7. By Mr. DOUGLASS: Do you mean Mr. L. F. Douglass, who is here present?

A. Yes, sir.

Q. 8. In what part of the room was the machine on that occasion?

A. I should say almost the same as it stands now, except it is further to the left than it was on that occasion.

Q. 9. That is in the end of the room opposite the door leading to the outer office?

A. The end opposite; yes, sir.

Q. 10. Where were you standing during the exhibition of the Graphophone?

A. I think I stood over here, if I remember, with my back to the door leading to the toilet.

Q. 11. About how far away from you were Mr. Easton and Mr. Douglass?

A. Well, I should say between 8 and 10 feet.

Q. 12. Now, please state just what happened on that day while you were in this room?

A. I was first called into the office by Mr. Macdonald, to make a record for him for the machine. I sang several short selections; then we had a newspaper placed over the machine, and the gentlemen I named before, Mr. Easton, Mr. Devine, Mr. Macdonald, Mr. Phillips and Mr. Douglass came into the room and listened to the records. When the

reproductions were heard each expressed their satisfaction and pleasure at the sounds reproduced, and their wonder and astonishment at the reproduction of such sounds. Afterwards the newspaper was removed from the machine and they all crowded around to examine the machine.

Q. 13. Did you hear Mr. Easton say "isn't it funny Mr. Douglass was telling us about this same thing on the train coming up here," or anything of that sort?

A. No, sir.

Q. 14. Did you hear Mr. Douglass say, "I knew it would do it for I tried it before," or anything of that sort?

A. No, sir.

Q. 15. Did you, prior to the day you first made a record on the Graphophone Grand, assist Mr. Macdonald in an experiment wherein a sound record was made at unusual speed, and if so, state when it was, and all you remember about it?

A. I assisted Mr. Macdonald in such an experiment in the month of July, 1898. He came into the music room and said he wished to make an experiment. We connected two batteries and attached them to one machine, from which the governor had been removed. I then sung a song for the machine, after which it was reproduced. Mr. Macdonald then exclaimed, "Just what I expected," and left the room.

Q. 16. What sort of a machine was the record made on?

A. An Edison Phonograph.

Q. 17. What sort of a machine was it reproduced on?

A. Graphophone.

Q. 18. Was any change made in the Graphophone before reproducing this record?

A. Yes, sir. He ran the speed up as high as the machine was capable of maintaining.

Q. 19. Do you know, or have you any idea, at what

speed the Phonograph was run in making the record and the Graphophone in reproducing it?

A. No, sir. I know the speed of the Graphophone in making the reproduction was not as great as the Phonograph in making the record.

Q. 20. Was, or was not, the speed of the Phonograph in making the record within the ordinary limits of the speed of that machine?

(Objected to as leading and suggestive.)

A. No, sir.

Q. 21. What was the fact, as to the speed?

A. I couldn't state the speed.

Q. 22. What was the effect of removing the governor?

A. It is possible to run the machine at a very much higher rate of speed.

Cross-examination by Mr. ADCOCK:

×-Q. 1. Where did Mr. Easton and Mr. Douglass stand in the room when you were standing with your back to the door leading to the closet?

A. As far as I can recollect Mr. Easton stood opposite me close by Mr. Macdonald's desk, with Mr. Douglass close by.

×-Q. 2. Two or three feet apart?

A. Possibly.

×-Q. 3. Where did Mr. Devine and Mr. Babson stand?

A. I couldn't state where Mr. Devine stood. Mr. Babson I have no recollection of.

×-Q. 4. Where was Mr. Macdonald standing?

A. Near the machine.

×-Q. 5. Where was Mr. Phillips standing?

A. Near that door (the door leading into the room from the hallway).

×-Q. 6. Do you remember anything that Mr. Phillips said?

A. No, sir.

×-Q. 7. Do you remember anything that Mr. Devine said?

A. Only the expression of delight and satisfaction at the reproduction of the sound.

×-Q. 8. Do you remember anything that Mr. Babson said?

A. No, sir; I have no recollection of Mr. Babson.

×-Q. 9. Do you remember anything Mr. Douglass said?

A. No, sir.

×-Q. 10. Do you remember anything that Mr. Easton said?

A. Nothing except his satisfaction and pleasure at listening to the reproduction of the sound—the same as the others.

×-Q. 11. Do you remember anything that Mr. Macdonald said?

A. I can't say that I do.

×-Q. 12. Do you remember anything you said?

A. I don't remember what I said; but I remember the sensation I felt at hearing the reproduction of the sound for the first time.

×-Q. 13. It was a song sung by you and recorded on the sound record that the machine was reproducing at this time, was it not?

A. Yes, sir.

×-Q. 14. Might it not have been Mr. Babson instead of Mr. Phillips who was standing near the door.

A. I have no recollection of Mr. Babson, but I do know that Mr. Phillips stood near the door.

×-Q. 15. You do not recollect hearing Mr. Easton say to Mr. Douglass, while you were in the room, "Isn't it funny

that you were telling me about this same thing on the train coming up"?

A. No, sir.

×-Q. 16. Did you see the paper removed from the machine?

A. Yes, sir.

×-Q. 17. What did you do after the paper was removed from the machine?

A. I remained standing in the room.

×-Q. 18. Did you shortly thereafter make another record for the machine?

A. I think I did.

×-Q. 19. Do you remember seeing Mr. Macdonald pare the record cylinder preparatory to making a new record?

A. I couldn't state positively.

×-Q. 20. What was the color of the paper which covered the machine?

A. It was a newspaper.

×-Q. 21. In whose employ are you—for whom do you sing to make sound records on talking machines?

A. For the Columbia Phonograph Company and National Phonograph Company and National Gramophone Company.

×-Q. 22. How long have you been in the employ of the American Graphophone Company or the Columbia Phonograph Company?

A. I have sung for the Columbia Phonograph Company at various times for the past five or six years.

×-Q. 23. You have stated that your occupation is a vocalist. Your special occupation is that of singing to make master records, and original records for talking machines, is it not?

A. I suppose it could be called special business.

×-Q. 24. Are you now being paid a salary by the Amer-

ican Graphophone Company or the Columbia Phonograph Company, or are you paid so much a sound record?

(Objected to as immaterial.)

A. I decline to answer.

×-Q. 25. In reproducing the sound record on the Graphophone which you made for Mr. Macdonald on the Phonograph, and in which you say "he ran the speed up as high as the machine was capable of maintaining," do you remember of noticing any marked irregularity in the reproduction of different parts of this record, or did it reproduce about the same or alike throughout the whole extent of the record?

A. I know the reproduction was very loud.

(Mr. Adcock: Answer objected to as wholly irresponsible to the question.)

×-Q. 26. The question was, did you notice any marked irregularity in the reproduction of different parts of the record, or was the whole reproduction about even or alike throughout.

A. I will say the reproduction was about as even as could be made without the use of a governor; I mean the governor used on the machine which made the record. I mean the reproduction of the sound was as regular as it could be reproduced from the fact that it had been made on a machine without a governor.

(The answer of the witness is objected to as irresponsible to the question.)

×-Q. 27. I did not ask you anything about the making of the record. You have stated that you listened to the reproduction of this record on the Graphophone; what I want you to state is the fact as to whether or not you noticed any

marked or material irregularity in the reproduction of the record at different portions of it, or whether it was substantially regular and even throughout?

A. Nothing other than there might have been a slight change in pitch at different times.

X-Q. 28. Aside from this slight change of pitch at times the reproduction was fairly uniform and even throughout, was it?

A. With the exception of the change in the pitch I would say it was a fairly even record.

JOHN J. FISHER.

(The testimony of this witness is objected to as incompetent, and inadmissible in so far as it may conflict with Macdonald's preliminary statement. This objection being here entered at the end of the deposition by a previous understanding.)

WALTER P. PHILLIPS.

And thereupon WALTER P. PHILLIPS, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says, in answer to interrogatories by Mr. MAURO, as follows:

Question 1. State your name, age, residence and occupation.

Answer. Walter P. Phillips; 54; residence, Bridgeport; occupation, employed by the American Graphophone Company.

Q. 2. Do you remember, Mr. Phillips, the first time you heard the reproduction of a sound record on the Graphophone Grand?

A. Yes, sir.

Q. 3. Where did that occur?

A. In this room.

Q. 4. Do you remember the time?

A. Yes, sir; it was in October, 1898, near the middle of the month, I should think.

Q. 5. Were there any strangers at the factory that day; if so, who were they?

A. Mr. Babson and Mr. Douglass were here; I don't remember any strangers.

Q. 6. Were you in their company that day?

A. Yes, sir.

Q. 7. Were they in this room at the time you heard the first reproduction of the Graphophone Grand which occurred in your presence?

A. Yes, sir.

Q. 8. In what part of the room were they, and in what part of the room were you during that exhibition? I show you a diagram to assist your answer, this being a copy of the Exhibit marked "Diagram of Manager's Office."

A. About around in here I should say (indicating on diagram). I of course am not very certain where we stood. My recollection is that we stood in a semi-circle about opposite here (indicating a line between the end of the roll-top desk and the square marked "A T Graph on case.")

Q. 9. Did Mr. Douglass and Mr. Babson come into the room with you?

A. Yes, sir.

(Objected to as leading.)

Q. 10. Who was in the room when you entered?

A. Why, Mr. Macdonald, Mr. Easton, Mr. Fisher; I don't remember any others.

Q. 11. After the first reproduction of sound record was

any remark made by Mr. Douglass which you recall? If so, state your recollection about it?

A. Mr. Douglass made some sort of remarks comparing this machine with the polyphone. I recall his having said that it surpassed the polyphone, or words to that effect.

Q. 12. Did you hear Mr. Douglass make the remark, "I knew it would do it, as I had tried it before," or anything of that nature?

A. No, sir; I didn't hear that.

Q. 13. Did you hear Mr. Easton say "isn't it funny Mr. Douglass was telling us of this same thing on the train coming here," or anything of that nature?

A. No, sir.

Cross-examination by Mr. ADCOCK:

×-Q. 1. At the time you first heard the machine reproducing did you see the machine?

A. Not at the time it was first reproducing; it was covered up.

×-Q. 2. Did you remain in the room until the first reproduction was completed?

A. Yes, sir.

×-Q. 3. What did you next do?

A. I staid here and heard other reproductions; several pieces played.

×-Q. 4. Do you mean to state that you remained in this room without leaving it?

A. Yes, I believe I staid right through the performance.

×-Q. 5. Where did you stand during this first reproduction?

A. Well, I should say right around here, somewhere between this Graphophone here and the end of that desk.

×-Q. 6. The end of the desk which is nearest the door leading into the room from the hall?

A. Yes, sir.

×-Q. 7. Do you remember whether Mr. Andrew Devine was in the room?

A. Yes, sir; he came in about the time we did.

×-Q. 8. Where was Mr. Easton?

A. Well, I couldn't say just where Mr. Easton was. He stood here near the desk, but the machine was here on the table with a large horn on it, and he would naturally stand where he could hear it.

×-Q. 9. About how long was the horn?

A. Oh, I should say it was at least 40 inches.

×-Q. 10. After the first reproduction was finished did you all remain standing in the same position or did you move about?

A. I couldn't say as to that.

×-Q. 11. Do you remember where you stood during the second reproduction?

A. I think about the same place that I originally occupied when I came into the room.

×-Q. 12. Do you remember anything Mr. Babson said?

A. I don't think I heard him say anything that I recall.

×-Q. 13. Do you remember anything that Mr. Devine said?

A. No, sir.

×-Q. 14. Do you remember anything that Mr. Easton said?

A. No, sir; I don't recall anything.

×-Q. 15. Do you remember anything that Mr. Fisher said.

A. Why my recollection is that Mr. Fisher assisted at the machine and reproduced some of his own records; he may have said something about that; I don't recall anything in particular.

×-Q. 16. Do you remember anything that Mr. Macdonald

A. My recollection is that Mr. Macdonald showed the machine and he didn't talk very much about it while I was in the room.

×-Q. 17. Do you remember anything that Mr. Douglass said excepting what you have stated?

A. No, sir.

×-Q. 18. Do you remember anything that you said?

A. No, I do not.

×-Q. 19. Do you remember where Mr. Fisher and Mr. Macdonald were standing at the first reproduction?

A. Over at this table (indicating table on which Graphophone Grand stood).

×-Q. 20. During the first reproduction to the best of your recollection, yourself, Mr. Douglass, Mr. Easton, Mr. Babson and Mr. Devine were standing in a semi-circle in front of the horn, the semi-circle extending from the end of the roll-top desk which is nearest the door entering the room from the hall, and the stand marked "A T Graph. on case."

A. That is my recollection of it. We were in a line with them instead of extending out so as to reach these two points. We were bunched together more than we would be if stretched from point to point.

×-Q. 21. Do you have any recollection of who was standing next to Mr. Easton?

A. No, sir.

×-Q. 22. Do you remember whether the remark that you have stated Mr. Douglass made was made by him during the first reproduction made on the machine, or after the first reproduction was finished?

A. Well, it was during the exhibition; I couldn't say whether it was after the first record or not.

WALTER P. PHILLIPS.

Adjourned to meet to-morrow morning, at 10.30 o'clock, A. M., at 141 Broadway, New York.

Notary's Certificate.

COUNTY OF FAIRFIELD, }
State of Connecticut. }

I, William R. Miller, a notary public within and for the county and State aforesaid, do hereby certify that the foregoing depositions of Thomas H. Macdonald, Frank H. Osborne, Millard F. Plummer, Eugene E. Norton, John J. Fisher, and Walter P. Phillips, were taken on behalf of said Macdonald pursuant to the notice hereto annexed before me at the factory of the American Graphophone Company, in the city of Bridgeport, in said county, on the 18th, 19th, 20th and 22d days of January, 1900; that said witnesses were by me severally sworn before the commencement of their respective depositions; that the testimony of said witnesses were written out in my presence by John R. Petrie and Randolph J. Bolling; that the opposing party, L. F. Douglass, was present with his counsel, Mr. Edmund Adcock, during the taking of said testimony; that said testimony was begun on the 18th day of January, 1900, at 1 o'clock in the afternoon and was continued by adjournment from day to day, and was concluded on the 22d day of said month; that I am not connected by blood or marriage with either of said parties, or interested directly or indirectly in the matter at controversy.

In testimony whereof I have hereunto set my hand and affixed my seal of office, at Bridgeport aforesaid, this 22d day of January, 1900.

WILLIAM R. MILLER,
Notary Public.

NEW YORK, *January 23rd, 1900*—10.30 A. M.

Met pursuant to adjournment at the offices of Philip Mauro, 141 Broadway, New York, Tuesday, January 23rd, 10.30 A. M., before C. E. Davidson, Notary Public.

Present as before.

GEORGE W. LYLE.

And thereupon GEORGE W. LYLE, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says, in answer to questions by Mr. MAURO, as follows:

Question 1. Please state your name, age, residence and occupation?

Answer. George W. Lyle; age, 38; residence, Evanston, Illinois. I am manager of the Columbia Phonograph Co., Chicago Branch, 211 State Street, Chicago.

Q. 2. Are you acquainted with Mr. L. F. Douglass, here present; and if so, about how long have you known him?

A. I am, and have known him from four to five years.

Q. 3. Did you ever have any conversations with Mr. Douglass on the subject of an order by him for machines known as Graphophone Grands; and if so, when did the first conversation on that subject occur?

A. I did, about November 11, 1898.

Q. 4. Did Mr. Douglass make an order for such machines?

A. He did not.

Q. 5. Did he give any reasons for not doing so; and if so, what were they?

A. He did; he stated before he was willing to place an order for the machine he wanted a guarantee as to how long the price would be maintained, and about what the probable output of the machine would be.

Q. 6. Have you any means of fixing the date of that

conversation, and of refreshing your mind as to what occurred?

A. I have. After the conversation with Mr. Douglass I returned to the office and wrote our executive office, giving the results of the interview.

Q. 7. Have you that letter; if so, please produce it?

A. I have and produce it.

(The letter produced by the witness, dated November 12, 1896, addressed to E. D. Easton, Esq., New York City, is offered in evidence as "Macdonald Exhibit Lyle Letter of November 12, 1898.")

(The letter is objected to as improper, incompetent and inadmissible unless the whole correspondence between the witness and Mr. E. D. Easton and his companies, The Am. Graphophone Co. and Columbia Phonograph Co., in relation to this matter, are also produced for inspection.)

(Counsel for Macdonald states that the letter is introduced to fix the date and submits that there is no question as to competency.)

Q. 8. Did you have any other conversation with Mr. Douglass on this subject shortly after this; if so, when?

A. I did, about November 16th, 1898.

Q. 9. State the substance of what occurred?

A. He still hesitated in placing his order on the ground that he wanted to know how long the price would be maintained and how many machines we could put out.

Q. 10. Have you any means of fixing the date of this conversation, and if so, what?

A. I have; a letter written to our executive office the same day giving the particulars of the interview.

Q. 11. Please produce that letter.

A. I produce it.

(The letter produced by the witness dated November 16, 1898, addressed to E. D. Easton, Esq., is offered in evidence as "Macdonald Exhibit Lyle Letter of November 16, 1898.")

(Same objection as above is repeated.)

Q. 12. When this subject of an order by Mr. Douglass for a Graphophone Grand was under discussion between you and him, did he intimate to you in any way that he claimed to be the inventor of that machine?

(Objected to as leading.)

A. No, sir.

Q. 13. When, if ever, did Mr. Douglass first intimate to you that he considered himself the inventor of that machine, or had done anything in that connection?

A. December 31, 1898.

Q. 14. State the substance of what Mr. Douglass said to you at that time?

A. In an interview with Mr. Douglass at that date, I mentioned that our company had taken patents out abroad on the large type of machine, and he said he did not see how we could get patents abroad, and that they were not worth anything, as he himself had made application for a large type machine over a year ago.

Q. 15. Have you any means of fixing the date of that occurrence and of refreshing your memory as to what occurred; and if so, state what means?

A. I have. A letter written to our executive office on the same date, giving the particulars of the interview.

Q. 16. Please produce that letter.

A. I produce it.

(The letter produced by the witness, dated December 31, 1898, and addressed to E. D. Easton, Esq., is offered in evidence as "Macdonald Exhibit Lyle Letter Dec. 31, 1898.")

(The same objection as heretofore made is repeated as to this letter.)

Q. 17. Did Mr. Douglass ever say anything to you about the application for patent for the Graphophone Grand having been made in the name of the wrong party? And if so, when was that?

A. He did, on January 10, 1899.

Q. 18. How do you fix that date?

A. By a letter written to Mr. Easton the day following the interview.

Q. 19. Please produce that letter.

A. I produce it.

(The letter produced by the witness, dated January 11, 1899, is offered in evidence as "Macdonald Exhibit Lyle Letter Jan. 11, 1899.")

(The objection heretofore made is repeated.)

Q. 20. Did Mr. Douglass ever call on you to invite an arrangement of the dispute with reference to the Graphophone Grand, and if so, state when?

A. He did, on March 28, 1899.

Q. 21. How do you fix that date?

A. By a letter written to Mr. Easton the same date, in which I gave him the particulars of the interview.

Q. 22. Have you that letter?

A. I have not the original letter, but the carbon copy made at the same time.

Q. 23. Please produce it.

A. I here produce it.

Q. 24. This carbon copy, dated March 28, 1899, is unsigned; do you know it to be a copy of the letter which you say was written on that date?

(Objected to as incompetent, inadmissible, irrelevant and immaterial.)

A. I do.

Q. 25. Where did you obtain this carbon copy?

A. From the letter files in our office.

(Last objection repeated.)

(The paper produced by the witness is offered in evidence as "Macdonald Exhibit Carbon Copy Lyle Letter, March 28, 1899.)

(Objected to as incompetent and inadmissible, the copy not being the best evidence, and further objected to as incompetent and inadmissible unless the whole correspondence between the witness and E. D. Easton and the American Graphophone Co. and Columbia Phonograph Co. concerning this matter and of which this letter is a fragment, is produced.)

Q. 26. Did Mr. Douglass ever give to you as the reason or a reason why he did not care to order the Graphophone Grand, that he considered himself the inventor of that machine, and thought he ought to have more favorable terms than other people; or words to that effect?

A. He did not.

Cross-examination:

(Without waiving the objections heretofore made, counsel for Douglass cross-examines, subject to the same.)

×-Q. 27. Are these letters to which you have referred and which you have produced, all the letters which you wrote to Mr. E. D. Eastman between November 12, 1898, and March 28, 1899, in relation to the matter contained in these letters?

(Objected to as immaterial.)

A. They are, bearing on the subjects testified to.

×-Q. 28. Are they all the letters which you wrote to Mr. E. D. Easton between these dates, bearing upon or relating to Mr. Leon Douglass?

(Objected to as immaterial.)

A. They are not.

×-Q. 29. Are they all the letters that you wrote to Mr. E. D. Easton between Nov. 12, 1898, and March 28, 1899, in relation to the Jumbo or Graphophone Grand machine?

A. They are not.

×-Q. 30. Did you receive from Mr. Easton any reply from any of these letters which you have produced and to which you have referred?

(Same objection.)

A. I did.

×-Q. 31. Prior to writing your letter dated November, 12, 1898, did you receive from Mr. E. D. Easton, president of the American Graphophone Co., a letter under date of November 9th giving you instructions, and to which reference is made as follows in your letter of November 12, 1898:

"I am in receipt of your letter under date of November 9th, referring to polyphone attachment on the phonograph, also to new Jumbo machine."

Is that correct?

(Same objection.)

A. It is ; I did.

×-Q. 32. Will you please produce that letter of instructions from Mr. E. D. Easton to you, dated November 9, 1899 ?

(Counsel for Macdonald states that the letter inquired of will not be produced at this time, but if he deems it material and proper he will produce it during the deposition of Mr. Easton, which is to be taken in this case.)

A. It is not in my possession.

×-Q. 33. In whose possession is it ?

(Same objection.)

A. I do not know ; I handed it to counsel, Mr. Mauro.

×-Q. 34. When did you hand it to Mr. Mauro ?

(Same objection.)

A. To-day.

(Counsel for Douglass here requests counsel for Macdonald, and his assignee, The American Graphophone Co., to now produce said letter of Mr. E. D. Easton to the witness and states that it is now needed for use in the further cross-examination of this witness.)

(Counsel for Macdonald replies that his former statement covers the ground, and that the letter is not needed for any purpose germane to the direct examination of this witness, or legitimate to this case.)

(Counsel for Douglass replies that the letter is needed and desired for use in further cross-examination of this witness, and its production now is believed to be by Douglass's counsel extremely necessary for the further cross-examination of the witness, and that Macdonald's

counsel is not the judge to determine whether it is needed or not, and again requests the production of the letter, in order that the cross-examination may proceed.)

(Counsel for Macdonald declines to produce this letter.)

(Notice is hereby given that at the hearing of this case, motion will be made to exclude from the record deposition of this witness by reason of the above refusal to produce the letter.)

×-Q. 35. Will you now please produce the other letters written to you by Mr. E. D. Easton in reply to your letters to him of November 12, 1898, of November 16, 1898, of December 31, 1898, of January 11, 1899, and of March 28, 1899, and also the letters of instruction which Mr. E. D. Easton may have written to you in relation to the Douglass and Graphophone Grand or Jumbo matter, referred to in your said letters to Mr. E. D. Easton ?

(Counsel for Macdonald gives the same instruction and makes the same statements as before, and adds, that nothing written by Mr. Easton to the witness could possibly have any bearing on what Mr. Douglass said or did not say to the witness, and counsel for Macdonald deems it his duty to the court and to the parties to confine the testimony, so far as it is in his power to do so, to matters relating to the issue of priority of invention in this case.)

(Counsel for Douglass states that the letters the production of which is called for above, are a part of the same correspondence of which the letters produced by the witness and offered in evidence are a fragment, and that their production is believed to be absolutely necessary to a full disclosure of the whole truth and all

the material facts in relation to the matters mentioned in the fragment of the correspondence contained in the few letters produced, and that the production of the letters called for is believed to be material and absolutely necessary to the intelligent further cross-examination of the witness; and again respectfully requests that the letters called for be now produced; and in case said letters are not now produced the notice heretofore given as to the motion to exclude this deposition for failure so to do, is repeated.)

A. I have no such letters in my possession.

×-Q. 36. In whose possession are they?

A. So far as I know in the possession of Mr. Mauro.

×-Q. 37. When did you give them to Mr. Mauro?

A. This morning.

×-Q. 38. Please now produce all other letters written by you to Mr. E. D. Easton, or the Am. Graphophone Co. or the Columbia Phonograph Co., on November 12, 1898, and on any succeeding dates between November 12, 1898, and March 28, 1899, referring in any way to Mr. Leon F. Douglass or any conversations or interviews you may have had with him, between the dates mentioned, or mentioning or referring to Jumbo or the Graphophone Grand, and also all letters that you may have received from Mr. E. D. Easton or the American Graphophone Co. in relation to the same subjects?

(Counsel for Macdonald, desiring to make progress with the case, states definitely and finally that he will not produce any letters written by or to this witness except those already produced in evidence; and that if counsel for Douglass desires other letters, and thinks he is entitled to them, he must apply his legal remedy to secure their production.)

(Counsel for Douglass states that the witness has been sworn to testify to the truth, the whole truth, and nothing but the truth in this case, and that it is his duty as a witness under his oath to disclose the whole truth, and not to attempt to conceal it or withhold it, and that it is also the duty of Mr. Macdonald's counsel in this case to permit the whole truth to come out and not to attempt to conceal matters and facts contained in the remaining portion of the correspondence, of which the letters offered in evidence are a fragment.)

(Counsel for Macdonald objects to the introduction into this record of homilies and lectures to counsel and the witness in regard to their duty in the premises, as being grossly improper and impertinent, and requests counsel for Douglass to proceed with the examination of the witness.)

A. Under instructions I decline to produce them.

(Counsel for Douglass here repeats the statements heretofore made in relation to the necessity and materiality of letters, and the notice heretofore given.)

×-Q. 39. During November and December, 1898, and January, 1899, about how often did you see Mr. Douglass?

A. Very frequently.

×-Q. 40. Every few days?

A. I should say so.

×-Q. 41. And you conversed with him to a greater or less extent each time you saw him?

A. I did.

×-Q. 42. In a letter which Mr. Douglass wrote to Mr. E. D. Easton on and dated November 16, 1898, Mr. Douglass stated as follows:

"Under the circumstances I hardly feel like ordering a graphophone grand. I feel interested in the machine, however, because it is one of my suggestions."

I now hand you Mr. Douglass's office copy of his letter of November 16, 1898, to Mr. Easton, to refresh your recollection, and I will now ask you, as you have finished examining the copy I handed you, if your recollection is not now refreshed so as to enable you to recollect that you and Mr. Douglass took lunch together at a restaurant on Madison St., near his office, on this day, November 16, 1898, and that Mr. Douglass, while you were in the restaurant taking your lunch, did state to you that the Jumbo or Graphophone Grand was one of his suggestions?

(Question is objected to by counsel for Macdonald, inasmuch as the copy of the letter written by Mr. Douglass to another person, and of which it does not appear the witness had any knowledge, cannot serve the purpose of refreshing his memory.)

A. I recall taking lunch with Mr. Douglass, but there was positively no reference to the Jumbo machine being one of his suggestions.

×-Q. 43. Do you know of any reason why Mr. Douglass should not have stated to you on November 16, 1898, orally, the same as he did to Mr. Easton in a letter written on that day, that the Graphophone Grand was one of his suggestions?

(Objected to by counsel for Macdonald as incompetent, as the witness cannot be supposed to have any knowledge of Mr. Douglass's reasons further than Mr. Douglass himself may have stated them.)

A. I know no reason why he did not.

×-Q. 44. When did Mr. Easton first state to you, either orally or in writing, that Mr. Douglass claimed the Jumbo or Graphophone Grand machine as one of his suggestions?

A. I have no recollection of his ever stating it to me;

that is, until very recently since these cases have been going on.

×-Q. 45. In the instructions he gave you in relation to the matters referred to in your letters to Mr. Easton which you have produced, he did not disclose to you the fact that he knew that the Graphophone Grand was one of Mr. Douglass's suggestions, or the fact that he had received a letter from Mr. Douglass in which Mr. Douglass stated that the Graphophone Grand was one of his suggestions, did he?

A. In answer to the first question there I would say positively never; and in answer to the second question I have no recollection of his stating that he had ever received such a letter containing any such claim from Mr. Douglass.

×-Q. 46. You were then simply a willing but blind tool in carrying out Mr. Easton's instructions?

(Counsel for Macdonald objects to the indecency and offensiveness of the question and instructs the witness to pay no attention to it.)

×-Q. 47. Do you refuse to answer the last question? I have waited at least two or three minutes for your answer?

A. Under advice of counsel I refuse to answer it.

(Counsel for Macdonald states that the question calls for no answer and for no attention whatever.)

×-Q. 48. Did you understand the purpose or object that Mr. Easton had in giving you instructions what to do in relation to the matters referred to or mentioned in the letters to Mr. Easton which you have produced in evidence?

(Objected to as incompetent and immaterial.)

A. I don't know what instructions you refer to, but any instructions I received from Mr. Easton I understood the meaning of.

×-Q. 49. In your letter to Mr. Easton dated December 31, 1898, you state :

"I told him I knew nothing about patents anyway, but the chances were that if Mr. Easton or Mr. Mauro said they had been allowed, they were not very far astray."

At the time you made that statement conveying to Mr. Douglass the impression that patents had already been allowed to Mr. Easton, did you know that it was false?

(Question objected to as assuming what does not appear in evidence.)

A. I did not.

×-Q. 50. You now know that it was false, do you not?

A. I do not.

×-Q. 51. In the same letter you state :

"I casually mentioned the fact that we had taken out patents in all the European countries, as well as in Japan, covering a large type of machine."

At the time you made that statement to Mr. Douglass, did you know that it was untrue?

(Same objection.)

A. I did not.

×-Q. 52. You know now that it is untrue, do you not?

(Same objection.)

A. I do not.

×-Q. 53. Do you know now that it is true?

A. As far as I have any means of knowing about it, it is true.

×-Q. 54. What knowledge have you in relation to it?

A. My recollection is that I had a letter from Mr. Easton stating that those patents had been allowed abroad.

×-Q. 55. About what was the date of that letter?

A. The latter part of December is my recollection of it.

×-Q. 56. Then, your only knowledge that those statements were true, which you made to Mr. Douglass, on December 31, 1898, to the effect that "we had taken out patents in all the European countries, as well as in Japan, covering a large type of machine," was Mr. Easton's statement to this effect, in a letter which you received from Mr. Easton on December 31, 1898, and which is referred to as follows, in the beginning of said letter:

"Upon receipt of your favor this morning I called on Mr. Douglass."

Is that correct?

(Objected to as immaterial and a mere waste of time.)

A. My statement was the letter was received the latter part of December, I don't recall exactly.

Recess for lunch.

×-Q. 57. The only information or knowledge you had on December 31, 1898, when you made this statement to Mr. Douglass to the effect that "we had taken out patents in all the European countries, as well as in Japan, covering a large type of machine" was that contained in Mr. Easton's letter to you, which you had received either on that same day, December 31, 1898, or shortly prior thereto. Is that correct?

(Objected to as immaterial.)

A. Yes.

×-Q. 58. Is Mr. E. D. Easton president of the Columbia Phonograph Company, for which you work?

A. Yes.

×-Q. 59. What relation, if any, are you to Mr. E. D. Easton?

A. Cousin.

×-Q. 60. Where did the interview between you and Mr. Douglass on November 11, 1898, occur?

A. In his office, 107 Madison street.

×-Q. 61. Who else was present at the interview besides yourself and Mr. Douglass?

A. I could not say.

×-Q. 62. What time of day was it?

A. I could not say that.

×-Q. 63. Was it in the forenoon or afternoon?

A. I could not say; my impression is that it was in the morning, but I could not say positively.

×-Q. 64. Where did the interview occur to which you refer, as follows, in your answer to Q. 6:

"After the conversation with Mr. Douglass I returned to the office and wrote our executive office giving the results of the interview,"

and in relation to which you produced, in answer to the next question, your letter to Mr. Easton dated November 12, 1898?

A. I think that is the same interview you just described, isn't it?

×-Q. 65. I don't know; you are the witness. Your answer to Q. 6 would seem to imply that you had an interview on the date of the letter November 12, 1898. Please state the fact, whether you had one interview on November 11, 1898, and another on November 12, 1898; and if so, where the latter occurred?

A. I think there was but the one interview and that occurred at 107 Madison Street.

×-Q. 66. At this interview you endeavored to procure from Mr. Douglass an order for a Graphophone Grand and went there in part for that purpose; is that correct?

A. I went there to give him the first opportunity to have the Grand machine to be delivered in Chicago, if he wanted it.

×-Q. 67. Where did the interview occur between you and Mr. Douglass which you have stated took place on November 16th, 1898?

A. As I recall it, part at 107 Madison Street, and part while we were going from there and at lunch.

×-Q. 68. Did you invite him to lunch, or he invite you?

A. I think he invited me; but I am not certain with regard to it. I give it up.

×-Q. 69. At this second interview, on November 16, 1898, with Mr. Douglass, you again endeavored to obtain an order from him for a Graphophone Grand, and that was your object in part in going again to see him at his office, 107 Madison Street; is that correct?

A. That is correct, except that the object was to have him take more than one machine; several machines we were talking about.

×-Q. 70. At your next interview with Mr. Douglass, after November 16, 1898, and which probably took place a few days thereafter, as you have testified you saw him very frequently, and every few days; do you remember what, if anything, was said by you, or by Mr. Douglass?

A. Nothing particular; I don't remember the purport of any interview.

×-Q. 71. Are you able to recollect anything that was said by either you or Mr. Douglass at any of the numerous interviews you had with him between November 16, 1898, and December 31, 1898?

A. I don't recall any of the particulars of the interviews.

I know the general subjects of the interviews but not the particulars of them.

×-Q. 72. You can't recall any particular thing that was said, at any of these intermediate interviews, between that of November 16, 1898, and that of December 31, 1898, either by you or by Mr. Douglass?

A. I know the results of the interviews but not the particulars of the conversations. I know that he placed no order for Grand machines, as I recall it, but our talk was with regard to business generally, and especially in regard to some special work we were endeavoring to get through at the factory in regard to his polyphone.

×-Q. 73. At these intermediate interviews between November 16 and December 31, 1898, you are simply able to recollect that you and Mr. Douglass had more or less general talk about the Grand, and also about the polyphone, and the special work about the latter at the factory, but are unable to recall any particular thing that was said either by you or by Mr. Douglass in any of these interviews. Is that correct?

A. Hardly; our talk about the Grand referred to his ordering some, and the polyphone attachments in regard to the number of our machines he could use if we could make a satisfactory attachment, and other conversation relative to the purchase of our goods general.

×-Q. 74. At the time that you told Mr. Douglass that, "we have taken out patents in all the European countries, as well as in Japan, covering a large type of machine", what, if anything, did you say to him about an American or United States patent?

A. Nothing, that I recall.

×-Q. 75. Do you remember of his ever telling you at any of your interviews with him that he had a record at his

house made on the principle of the Grand, more than a year ago, or any words substantially to that effect?

A. No, sir; I do not.

×-Q. 76. You are unable to recall that conversation?

A. There was no such conversation.

×-Q. 77. In your letter of January 11, 1899, you state: "In the meantime, while I was at Douglass's office yesterday, among other matters, he took occasion to refer to several letters, which he had written you back in March or April, in which there were marked paragraphs in regard to the use of larger cylinders on machines, and he stated quite boldly that the patent had been taken out in the name of the wrong party." Prior to this date, January 11, 1899, did Mr. Easton ever say in any talk you had with him, either face to face or over the long distance or other telephone, anything about having received such letters from Mr. Douglass?

A. He did not.

×-Q. 78. Please look at your letter dated January 11, 1899, and state if there is not attached to it a slip with the word "Important" at the top, reading as follows:

" 1550

Reference Number 1550

SUBJECT: Attached letter from Geo. Lyle relative to Douglass and large-cylinder machines.

Referred to Mr. Mauro for his information.

H. A. Budlong,
Executive Officer.

H. A. B. Jan. 12, 1899.

Have written on this subject to Mr. Brown (Poole & Brown) Chicago.

P. Mauro."

A. There is.

×-Q. 79. In whose employ is H. A. Budlong?

A. He is the executive officer of the Columbia Phonograph Company.

×-Q. 80. What connection, if any, has he with the American Graphophone Co. ?

A. I do not know.

×-Q. 81. In your letter of November 12, 1898, you state:

"In connection with the first matter, would state that I found Mr. Douglass and gave him to understand as distinctly as I could your feelings in regard to the polyphone being used in connection with the phonograph."

What did you say to Mr. Douglass in relation to Mr. Easton's feelings about the use of the polyphone on the phonograph? Give your exact words as near as you are able to recollect them.

A. I told him that Mr. Easton had written stating that he heard that Douglass was selling phonographs equipped with polyphone attachments, and that he was much surprised or astonished (I don't know the exact word), as Mr. Douglass's agreement with him was that he would use the polyphone attachment only in connection with the Graphophone. That is about as I recall the conversation.

×-Q. 82. Mr. Easton wanted Mr. Douglass to confine the use of the polyphone to the Graphophone, and not use it on the phonograph; is that correct?

A. Not exactly as I understood it. His desire was that Mr. Douglass should confine himself to his agreement, which was to use this attachment only on the Graphophone.

×-Q. 83. You speak of the existence of some agreement. Have you that agreement?

A. No, sir.

×-Q. 84. Did you ever see it?

A. No.

×-Q. 85. Don't you know, Mr. Lyle, that Mr. Douglass never made any agreement to confine the use of the polyphone to the Graphophone?

A. I do not know there was no such agreement.

×-Q. 86. Outside of the matters recited in your letters to Mr. Easton, dated November 12, 1898, November 16, 1898, December 31, 1898, and January 11, 1899, and March 28, 1899, are you able to recollect anything else that was said either by you or by Mr. Douglass at these interviews of November 12, 1898, November 16, 1898, December 31, 1898, and January 11, 1899, either by you or by Mr. Douglass; and if so, please state any additional matters, and at which interview, if any, these additional things were said?

A. I have already given a full answer to that question; told you all the interviews and what was talked about, and I remember nothing further now.

×-Q. 87. You are unable to recollect that anything else was said, either by you or by Mr. Douglass, at your November 11 or 12, 1898, interview, excepting that which is recited in your letter of November 12, 1898; is that correct?

A. That is referring to these subjects, yes.

×-Q. 88. Can you recollect anything else that was said referring to any other subjects; and if so, what was it?

(Objected to as immaterial; the question on its face calling for irrelevant matters.)

A. Not especially; but we always talked over the advisability of his giving substantial orders for goods; that was a matter of nearly every interview.

×-Q. 89. Aside from the matters recited in your letter of November 16, 1898, what, if anything, are you able to recollect was said either by you or Mr. Douglass, at the November 16, 1898, interview?

A. I recall nothing, excepting the matters referred to in the letter.

×-Q. 90. Aside from the matters recited in your letter of December 31, 1898, what, if anything, was said either by you or by Mr. Douglass, at your interview of that date?

A. I recall no particulars or details of any other subject.

×-Q. 91. You are not able to recollect anything else that was said by either you or by Mr. Douglass at this interview?

A. I do not.

×-Q. 92. What, if anything, are you able to recollect was said either by you or by Mr. Douglass at your interview of January 10, 1899, aside from the matters recited in your letter of January 11, 1899?

A. I don't recall any details further than those mentioned in the letter.

×-Q. 93. What, if anything, are you able to recollect was said either by you or by Mr. Douglass at your interview with him of March 28, 1899, aside from the matters recited in your letter of that date?

A. Why he went into this subject more fully than written here, said that he felt friendly to the Graphophone Company, and he would feel very sorry if any action of his worked an injury to the Graphophone Company, and not a benefit to him personally. In other words, that he did not want the delay in the matter to work to the benefit of the National or Edison Phonograph Company, while this matter was tied up. That was about the purport of it. I don't recall anything except along that line. I told him that I would 'phone the message to the office, and that probably some arrangement could be arrived at, although I knew nothing about the manner of doing it.

×-Q. 94. During the period covered by your interviews with Mr. Douglass, from November 12, 1898, to March 28, 1899, were you friendly to Mr. Douglass, and did you act friendly with him?

A. Yes, sir.

×-Q. 95. Except for the letters which you have produced and which have been offered in evidence, would you be able to recollect the matters in relation to your interviews with Mr. Douglass, which are recited in these letters?

A. Yes, sir; I would.

×-Q. 96. Why are you then not able to recollect other parts of the conversation that occurred at these same interviews, and which you have stated that you are unable to recollect? I refer to matters outside of those recited in the letters. Is not the fact this: That after reading over the letters you are able to recollect the occurrences recited in them, but unable to recollect any portion of the conversations outside of the matters recited in the letters?

A. I did not say I was unable to recollect the subject; I said I was unable to recollect the details of the conversations. The fact is that after reading the letters I am able to locate the exact dates of the interviews, and the details, and again, these matters were more important in my mind than our ordinary daily interviews in regard to the sale of our goods, which were general in their character.

×-Q. 97. Why did you consider the securing of an order for one or more Graphophone Grands from Mr. Douglass such an important matter.

A. I have already stated that it was not the question of one Graphophone; it was a question of ten Graphophones, which meant the purchase of some \$2,500 or \$3,000 worth of goods.

×-Q. 98. You have stated that you are unable to recollect the details of any other of the numerous conversations that you had with Mr. Douglass between November 12, 1898, and March 28, 1899. If you had before you now letters of yours reciting the details of these other conversa-

tions, which you had with Mr. Douglass between those dates, don't you think you might now be able to state the details of these other conversations the same as you have been able to state the details of the particular interviews which are mentioned or referred to in the five letters which you have produced?

A. I think it is very likely I could; but there were many interviews about which there were no letters written.

×-Q. 99. In addition to writing letters to Mr. E. D. Easton, you are also accustomed to hold conversations with him over the long-distance telephone, are you not?

A. That is right.

×-Q. 100. And you had a number of long-distance telephone talks with Mr. Easton during this time between November 12, 1898, and March 28, 1899, did you not?

A. I should not wonder; I could not remember how many. Any time anything sufficiently important comes to telephone, we telephone.

×-Q. 101. Do you remember having a conversation with Mr. Douglass and Mr. Henry Babson, at the Boston Oyster House in Chicago, Illinois, a few days prior to March 28, 1899?

A. I remember the interview; I don't place the exact date of the interview.

×-Q. 102. It was only a few days prior to the date of Mr. Douglass's call upon you, referred to in your letter of March 28, 1899?

A. I could not say just when the interview was; I remember the interview very well.

×-Q. 103. Do you remember of saying to Mr. Douglass in the presence of Mr. Babson, when you were taking lunch together at the Boston Oyster House, "Why don't you and the Company get together about this Graphophone Grand

matter, and fix it up," or words substantially to that effect or meaning?

A. I don't recall it exactly. Something of that description may have occurred, but I don't recall it exactly. I know that I have often talked about getting the two companies closer together.

×-Q. 104. Talked to Mr. Douglass about this?

A. To Mr. Babson and Mr. Douglass, all together.

×-Q. 105. To refresh your recollection further, don't you remember at this time at the Boston Oyster House, after you said to Mr. Douglass words substantially to the effect, "Why don't you and the Company (meaning Mr. Easton or his Company) get together and fix this matter of the Graphophone Grand up," that Mr. Douglass replied and said to you in the presence of Mr. Babson, "I have no proposition to make, but I am ready to listen to one." Are you now able to recall a conversation substantially to the effect mentioned in the question?

A. I recall some conversation about getting together, but no such conversation as the last remark, that he was ready to listen to any proposition. That conversation referred to general business, not only to the Grand, but business in general. We were talking in regard to a large order for goods which they were to give me providing we could get some special arrangements in regard to discounts.

×-Q. 106. Do you deny under oath that a conversation substantially to the effect stated in my previous question did take place at the Boston Oyster House at the time you and Mr. Douglass and Mr. Babson were lunching together there?

(Objected to as wholly immaterial, and productive of a mere waste of time.)

A. I have answered it once and I understand I am under oath.

×-Q. 107. Do you deny that such conversation took place?

A. I have answered that question once, and told you what conversation took place.

×-Q. 108. I wish you to state under oath, positively one way or the other, whether you did not at this time say to Mr. Douglass in the presence of Mr. Babson, in the Boston Oyster House, "Why don't you and the Company get together about this Graphophone Grand matter and fix it up," or words substantially to that effect or meaning?

A. I have already stated that I thought there was some such conversation.

[Signed] GEO. W. LYLE.

ANDREW DEVINE.

And thereupon ANDREW DEVINE, a witness produced on behalf of Macdonald, being first duly sworn, deposes in answer to questions by Mr. MAURO, as follows:

Question 1. State your name, age, residence and occupation?

Answer. Andrew Devine; age 57; residence, Brooklyn, N. Y.; I am connected with the American Graphophone Company.

Q. 2. How long have you been interested in and closely connected with the talking machine business?

A. From the organization of the American Graphophone Company, in, I believe, 1887. I was one of the three gentlemen who organized the company.

Q. 3. To what extent have you paid attention to the

developments in and relating to the art of recording and reproducing sounds?

A. I have been interested in the development of the art since before the date I have mentioned, and have given it continuous, though perhaps not very detailed, attention.

Q. 4. Have you had any training or experience calculated to develop and test the qualities of close observation and retentiveness, and if so, state the facts in this connection?

A. I have practiced for a great many years the art of shorthand reporting, which, when done successfully, necessitates great concentration of attention and, in some cases, retentiveness—if that is what you refer to.

Q. 5. Where principally, of recent years, did you practice the art of shorthand reporting?

A. In Washington, as an official reporter of the House of Representatives.

Q. 6. Are you familiar with the machine generally known as the Graphophone Grand?

A. I have seen it often, and heard it, and used it somewhat.

Q. 7. Do you remember the occasion when you first heard a reproduction of sounds by means of that machine?

A. I do.

Q. 8. Where, and when was that?

A. It was at Bridgeport, Connecticut, in the factory of the American Graphophone Company, on the 18th of October, 1898.

Q. 9. State in a general way how that exhibition impressed you?

A. It surprised and gratified me very much. I perceived, and I think stated to several people, that that invention marked the beginning of a new era in the talking machine art.

Q. 10. In whose company did you go to Bridgeport, Connecticut, on that day?

A. Mr. Leon F. Douglass, Mr. Babson, Mr. Easton and I went together.

Q. 11. By whose invitation, if there was any invitation, did you go, and if any special reason was given for the invitation, please state what it was?

A. I had no intention of going that day when I left my house. When I came to the office Mr. Easton suggested that as he and Mr. Douglass would probably be quite fully occupied in talking about the polyphone which Mr. Douglass, as I understood, wished to have manufactured by the American Graphophone Company, and as Mr. Babson was a stranger, it might be courteous for me to go along and help to entertain him, and I agreed to do so.

Adjourned to Wednesday, Jan. 24, 1900, 10 A. M.

NEW YORK, *January 24th, 1900.*

Deposition of Mr. Devine resumed:

Q. 12. Did you remain in Mr. Babson's company throughout that trip?

A. I did, until after we had seen the new machine, and, in a general sense, in his company all the way back; but specifically, I was with him all the time from our start from the Bowling Green Building until the exhibition of the new machine was completed.

Q. 13. How were you and your companions seated on the train going to Bridgeport?

A. Mr. Babson and I sat together on one seat, facing the engine; Mr. Douglass and Mr. Easton sat together on another seat. My impression is that they were one or two seats forward of us, also facing the engine, but I am not

positive about that, after having heard some testimony given in this case.

Q. 14. During that ride to Bridgeport did you hear Mr. Douglass say to Mr. Easton anything about using a large cylinder?

A. I did not. I did not hear any of the conversation between Mr. Easton and Mr. Douglass, after we started, and, as I have said, my very strong impression is that they were so seated that it would have been impossible for me, or anyone near me, to have heard anything that they said.

Q. Did you at any time prior to the exhibition of the Graphophone Grand, hear Mr. Douglass say anything to Mr. Easton with reference to a large cylinder, or with reference to anything connected with or suggestive of the machine which you afterwards saw and heard on that day?

A. No.

Q. 16. How was your time occupied after arriving at the factory and before the exhibition?

A. Mr. Easton on our arrival, or immediately after, said to me that he had business to attend to with Mr. Macdonald, and that he wished I would get Mr. Phillips, the assistant manager, to show Mr. Douglass and Mr. Babson through the factory, I going with them. I got Mr. Phillips, and we spent whatever time it required to go through the factory in detail, walking, and sometimes stopping and talking about the different processes and machines. Mr. Babson seemed to be very much interested in some of the machinery, and we made a few brief stops so that he might inspect such machines. We then came back to, I think, Mr. Phillips' room. It was getting pretty near the time for the return train when Mr. Easton invited us to come and see something, without stating what it was. We went into Mr. Macdonald's room on this invitation. As we entered the room there was a large horn facing us, obviously con-

nected with some sort of machine, and there was a newspaper roughly held around it—I don't remember exactly how, I think the horn had been jammed through the paper. I noticed that the edges of the paper around the horn were ragged and thought it was a crude job. Mr. Macdonald proceeded to give us an exhibition of the new machine. Mr. Douglass and Mr. Babson and I had entered abreast, and stood so, at some distance from the door by which we had entered. My recollection is that not a word was said by any of us until after the exhibition, and after Mr. Macdonald had removed the paper from the machine. I was very much impressed by the exhibition, and I said the first word that was said by anyone in our group. I turned to Mr. Douglass and Mr. Babson, and Mr. Douglass looked to me very much astonished and much paler than usual, and I said, "This is surprising," or some words to that effect. Perhaps I said, "You look surprised," but I am not sure. Mr. Douglass answered, as if he were taking a long breath, or letting one out, rather—"yes," pronouncing "yes" very slowly. "I thought at first that my polyphone was gone up (or 'gone'), but then I remembered that I could put the polyphone on that and make it twice as loud." That struck me as an intelligent idea; the suggestion seemed quite feasible, and I made some remark to that effect. We moved forward toward the machine, and Mr. Easton, who had been standing quite a way from us, on our left, I should say about as far from us as he was from the machine, moved down toward the machine and joined us, and there was some general congratulation on the achievement of the big machine. I contented myself with just looking at the machine and the recorder. I think Mr. Douglass and Mr. Babson inspected it closely, in Mr. Macdonald's company, and with his approval and guidance.

Q. 17. You have stated that Mr. Douglass, Mr. Babson

and yourself stood in a group in front of the horn, and Mr. Easton some distance away at your left?

A. Yes, but not on a line with us.

Q. 18. Who else was in the room during this exhibition?

A. Mr. Macdonald and Mr. Fisher, certainly. I understand that Mr. Phillips was there, but I don't remember seeing him, and I am quite sure that he was not up by the machine. My own attention was riveted on the machine, on the horn, to a great extent, from the time we went into the room. I think I did not look around at all; but I did not need to look around to see Mr. Easton, Mr. Macdonald and Mr. Fisher.

Q. 19. Please look at the diagram I now hand you, and locate with reference to the several objects marked thereon, the positions of the several persons in the room during and at the conclusion of the first reproduction (the diagram shown to the witness is a copy of the exhibit Diagram Manager's Office)?

A. We were standing I should say about here (pointing) nearly opposite the point marked "A. T. Graph on case." By "we," I mean Mr. Douglass, Mr. Babson and myself. We were directly in front of the mouth of the horn. Mr. Easton was standing, I should say, about the middle of the point marked "roll-top desk." I don't remember the desk in connection with the occasion, and I simply mean that he was in that general position in the room with reference to the machine and with reference to Mr. Douglass, Mr. Babson and myself. Mr. Macdonald was up by the machine; that is, he went there immediately on our entrance into the room. My recollection is that he came from the corner marked "File Case," over to the machine. Mr. Fisher, I think, was part of the time by the machine and part of the

time moving about in the part of the room to the right of the machine. I think he went out and came in again.

Q. 20. You have heard the testimony given in this case by Mr. Douglass and Mr. Babson, with reference to an alleged exchange of remarks between Mr. Easton and Mr. Douglass, immediately after the first reproduction, to this effect: Mr. Easton is said to have observed, "Isn't it funny that Mr. Douglass was telling us about this same thing on the train coming here," or words to that effect.

(Counsel for Douglass here requests the notary to take down on the record the words just uttered by the witness, Mr. Devine, the same being "Telling me.")

(Counsel for Macdonald objects to the unwarranted and childish interruptions and proceeds with his question.)

(Q. by Mr. MAURO:) Mr. Douglass is said to have remarked: "I knew it would do it, for I have tried it before," or words to that effect. Please state, whether or not, any such conversation occurred, either at that time, or any time in your presence?

A. No such conversation occurred in my presence at any time.

Q. 21. Please look at the paper I now hand you, and which is headed "Memorandum, Graphophone Grand," and particularly at the words "the foregoing statement, so far as it relates to the events of October 18, 1898, is correct to my knowledge," and signed "Andrew Devine," and state, whether that is your signature, and, if you can, when you signed it?

(Objected to as incompetent, inadmissible and immaterial.)

A. That signature is mine, and it was written at the date upon the paper, March 1st, 1899.

(Counsel for Macdonald states that the body of this paper is the same as the "Macdonald Exhibit Statement March, 1899," and that he proposes to introduce this particular paper after the same has been identified by the several persons whose signatures appear thereon.)

(The statement of counsel is objected to as not evidence.)

Q. 22. Were you present at the office of the Polyphone Company, on Madison street, in the city of Chicago, on or about December 7th, 1899, when some trials were had of a sound record, marked in this case "Douglass Exhibit 1897 Sound Record"?

A. I was; but not during the whole of the testing.

Q. 22. Did you, while in Chicago, make a memorandum of what occurred during the time you were present; and if so, please produce it and read it as part of your answer?

(Objected to as incompetent, inadmissible, immaterial and as wholly irregular and improper method of attempting to get unsworn statements into the record.)

A. I did make such a memorandum. It is dated Chicago, December 10th, 1899, and it was made on that date. It reads as follows:

"On the 7th inst. I was in the office of *The Talking Machine Co.* in this city when an experiment was made for the purpose of determining as nearly as possible the rate of speed at which a certain sound record, introduced in evidence on behalf of Mr. Douglass in the interference case of Douglass v. Macdonald, had been made.

Other gentlemen present were Mr. Mauro, counsel for Macdonald, Mr. Munday and Mr. Adcock, counsel for Douglass, Mr. Babson, Mr. Smith of the Columbia Phonograph Co., Mr. L. F. Douglass and Mr. Macdonald. The test was made on a phonograph. Mr. Douglass and Mr. Macdonald regulated the speed of the machine—Mr. Douglass first, Mr. Macdonald later. While Mr. Macdonald was increasing the speed gradually, he asked Mr. Douglass what kind of voice the reputed singer of the song "I Love You in the Same Old Way," had. Mr. Douglass replied, that he thought it was a high tenor. When what seemed the proper speed was reached, the song was reproduced. The revolutions of the mandrel were counted by Mr. Munday and Mr. Macdonald. Mr. Munday stated the number as 'thirty revolutions in ten seconds—180 per minute.' Mr. Macdonald, who used a stop watch, stated the number as 172 per minute. The record impressed me as a poor one—not at all equal in quality or loudness to an ordinary record of the same song taken from the stock of the Columbia Phonograph Co. in Chicago.

ANDREW DEVINE."

(The answer is further objected to as being secondary evidence of an unsworn and inadmissible written statement.)

Q. 24. Are the statements contained in that memorandum true statements of what occurred in your presence on the occasion referred to?

(Objected to as incompetent and inadmissible, improper and irregular.)

A. They are true, but not complete.

Q. 25. If you remember any events not stated in that memorandum, please state them now?

A. My last answer was given under a misapprehension. I thought the memorandum referred to in the question was

the one in relation to events at Bridgeport on the 18th of October, 1898. I do not remember anything that took place at the office of The Talking Machine Co. on the 7th of December last, that is not stated substantially in the memorandum which I have just read into the record, but, before the proceedings in connection with the test of the sound record therein referred to were completed, I went to another part of the store with Mr. Babson, so that other things may have taken place after I had left.

Q. 26. Now please state whether the statements contained in the memorandum dated December 10th, 1899, and which you have read into the record, are true statements of what occurred in your presence on the occasion referred to?

(Same objection.)

A. They are.

(The memorandum dated December 10, 1899, is offered in evidence to be marked "Macdonald Exhibit Devine Memorandum Dec. 10, 1899.")

(Same objection.)

Cross-examination by Mr. Adcock:

×-Q. 27. Are you vice-president of the American Graphophone Co.?

A. No; I am vice-president of the Columbia Phonograph Co., General.

×-Q. 28. What office do you hold in the American Graphophone Co.?

A. I am a director in the company.

×-Q. 29. About how long have you been a director?

A. Ever since the organization of the company, with the exception of either one or two years, I don't remember which. The exception occurred several years ago.

×-Q. 30. Are you now, and have you been for several years, largely interested as a stockholder in that company?

A. I am, and have been so for several years.

×-Q. 31. During the past two years have you given considerable attention to the affairs of the American Graphophone Company, of which you are a director?

A. Yes; in a general way.

×-Q. 32. You were present in Chicago during the taking of Mr. Douglass's deposition in this case (the part of it which was taken in December), and there saw copies of Mr. Douglass's letters to Mr. E. D. Easton, the president of the American Graphophone Co., dated April 2nd, 1898, April 5th, 1898, and March 23rd, 1898, and which were there introduced in evidence, were you not?

A. Yes.

×-Q. 33. You remember that one of these letters—that of March 23rd, 1898—made mention of the use of a large or six-inch diameter cylinder on talking machines; and that the one dated April 2, 1898, contained an expression to the effect that "in my opinion it would be better to use a large-sized blank, as the larger the size of the blank the better the record"; and that the one dated April 5th, 1898, contained an expression to the effect, "and the most important thing is making a larger cylinder, that is, larger in diameter"; do you not?

A. I remember such expressions in some of Mr. Douglass's letters, and I assume that you have stated the dates correctly. I had read the letters before I heard them at Chicago.

×-Q. 34. When do you remember of having first seen or read these letters?

A. Sometime late in the fall of 1898, I think it was in December, I was told that Mr. Douglass claimed to be the inventor of the Graphophone Grand. At first I was incred-

ulous and thought it was a joke, not on Mr. Douglass's part—

(All of the above answer except the first sentence thereof is objected to as irresponsible to the question.)

(Counsel for Macdonald objects to the untimely and discourteous interruption, and requests that the witness be allowed to finish his answer before objections are entered thereto.)

The witness states that he desires to finish his answer.

(Witness continues:) Almost at the same time, perhaps a day or two later, I heard that Mr. Douglass claimed to have written to Mr. Easton, making suggestions upon which the Graphophone Grand was based. I went to see Mr. Easton about it, and asked him to procure for me all the letters of Mr. Douglass making suggestions of improvements in the talking machine. In a few days a batch of letters from Mr. Douglass to Mr. Easton was handed to me, covering the period during which it was claimed that Mr. Douglass had invented the Graphophone Grand, and the letters referred to in your question were among them. That is how I came to read them.

(The matter just added by the witness to his last answer is objected to as wholly irresponsible to the question, which only calls for the date.)

(Counsel for Macdonald disputes that the witness added anything to his answer, but on the contrary states that Mr. Adcock insisted upon interrupting the witness and arguing with him as to the responsiveness of the first part of his answer while the witness was protesting that his answer was incomplete.)

×-Q. 35. Then, you did not know of the existence of these letters of Mr. Douglass to Mr. Easton, or that Mr. Douglass had communicated to Mr. Easton the ideas disclosed in these letters at the time you and Mr. Douglass, Mr. Babson and Mr. Easton heard and saw Macdonald exhibit his first Graphophone Grand at your Bridgeport factory on October 18th, 1898?

A. I did not. I may have heard—I think I had heard—something about a suggestion of a large cylinder on the commercial machine. My recollection is very vague about it, but I think I had heard some such suggestion, as a means of getting more words on a single cylinder; but I don't even remember that it was mentioned as having come from Mr. Douglass.

×-Q. 36. On October 18, 1898, when you and Mr. Babson, Mr. Douglass and Mr. Easton were going on the train from New York to Bridgeport, do you remember about eating lunch, or some fruit and sandwiches that you or Mr. Easton had bought prior to getting onto the train?

A. I remember it vaguely.

×-Q. 37. Can't you recall that the four of you were sitting together, facing each other, on adjoining seats while eating your lunch?

A. I cannot; but I do not mean to be understood as contradicting that statement.

×-Q. 38. Are you able to recall that you and Mr. Babson and Mr. Douglass were waiting some little time in Mr. Phillips' or some other room, before Mr. Easton came and invited you into Mr. Macdonald's room where the Graphophone Grand was exhibited?

A. Yes, I remember that distinctly.

×-Q. 39. Do you remember that after you got to Mr. Macdonald's room, where the Graphophone Grand was, that Mr. Easton first entered and closed or partially closed the

door and remained in the room for a short time, possibly a minute more or less, and then came back to the door and you and Mr. Douglass and Mr. Babson then entered?

A. I think that is substantially correct. I don't remember exactly his closing the door, but we could not see into the room until we entered, so I suppose the door was closed.

×-Q. 40. And do you recall that when Mr. Easton came back to the door, on the outside of which you and Mr. Babson and Mr. Douglass were standing, and the door was opened and you three entered the room, that the Graphophone Grand machine on the table at the farther end of the room was then playing or in operation, or reproducing?

A. My recollection is that it was just beginning.

×-Q. 41. Do you recollect the selection or song that it was reproducing?

A. No.

×-Q. 42. That was, however, the first time that you had heard it reproduce anything?

A. It was.

×-Q. 43. When you first entered the room, could you distinctly hear the machine at the farther end of the room, from the end at which you entered?

A. Very distinctly; though we were not quite at the farther end.

×-Q. 44. You did not have to approach near the mouth of the horn in order to distinctly hear the reproduction, did you?

A. No.

×-Q. 45. It is a fact, is it not, that the reproduction made by the machine is given or heard with rather better effect at a considerable distance from the mouth of the horn, than close to it?

A. I think so.

×-Q. 46. You have stated that you were standing in front of the horn and about opposite the stand upon which there was an A. T. Graphophone, and which is marked "A. T. Graph on case" in the diagram to which you have referred. Isn't it a fact that you were standing some distance farther back from the horn and nearer the end of the room at which you entered from the hall?

A. On looking at the diagram again, I am inclined to think that we were standing farther back—a little farther back—than the point marked "A. T. Graph on case."

×-Q. 47. Do you remember where Mr. Douglass and Mr. Babson stood in relation to yourself?

A. I do; we stood in a line. I think Mr. Babson stood next to me, though I am not sure about that. We stood quite close together.

×-Q. 48. On the diagram of the room I mark with a pencil the line you indicated with your finger in giving your last answer. Is that correct?

A. I think that is a little too far back.

×-Q. 49. But you saw me, however, mark with the pencil the same line over which you drew your finger in giving your last answer?

A. I did not; I did not know you were marking the diagram at all; nor do I know that the mark is where I drew my finger. Furthermore, when I put my finger on the diagram, it was for the purpose of indicating the direction in which the line made by Mr. Douglass, Mr. Babson and myself ran, and not for the purpose of again stating how far back from the horn we stood.

×-Q. 50. Please mark with the letters A, B, the pencil line which I drew on the blue-print drawing, which has been referred to in the last few questions, and then draw another line on the diagram indicating what you now recollect to be the positions that you and Mr. Douglass and

Mr. Babson occupied in the room, and mark the new line which you draw with the letters C-D?

A. I have done so.

×-Q. 51. You have stated that during the first reproduction made on the machine after you and Mr. Douglass and Mr. Babson entered the room, Mr. Easton was standing at a point which you have designated as being about the middle of that marked "Roll-top Desk" on this diagram. And you have stated that your attention during this first reproduction of the machine was chiefly directed to the machine or reproduction. Isn't it possible that Mr. Easton may have moved over nearer to where you and Mr. Babson and Mr. Douglass were standing, so as to get more in line with the horn during some part of the reproduction?

A. It would be possible; but as a matter of fact he did not move his position.

×-Q. 52. Notwithstanding the fact that you have already testified that your attention was chiefly directed to the machine and the reproduction, during this time while the first reproduction was made, you wish to be understood as stating positively under oath that Mr. Easton did not move from his position during this whole time, do you?

A. I mean to be understood as saying that during the whole of the performance referred to in the question, Mr. Easton occupied the same general position in relation to the machine and to Mr. Douglass, Mr. Babson and myself, that I have indicated.

Recess until 2 P. M.

(Witness adds to last answer:) Of course, I do not mean that he stood stock still.

×-Q. 53. So far as you are able to recollect he may have moved about to some extent?

A. He may.

×-Q. 54. You have stated that Mr. Douglass, when you turned to Mr. Douglass and Mr. Babson, looked much paler than usual, after the first reproduction and after the paper which had covered the machine had been removed. Did you notice that Mr. Babson looked paler?

A. I did not.

×-Q. 55. You did not notice any change in the color of Mr. Babson's countenance?

A. No; my eye fell upon Mr. Douglass as I turned around and made a remark.

×-Q. 56. Did Mr. Easton look paler than usual?

A. I think not; I did not notice; I was not talking to Mr. Easton.

×-Q. 57. Did Mr. Fisher, or Mr. Macdonald look paler than usual?

A. Neither Mr. Easton, Mr. Fisher nor Mr. Macdonald was within the range of my vision when I turned around to speak to Mr. Douglass; therefore I do not know how they looked.

×-Q. 58. Before you turned around, did Mr. Easton look paler than usual?

A. I do not know.

×-Q. 59. Did Mr. Fisher?

A. I do not know.

×-Q. 60. Did Mr. Macdonald?

A. I do not know. Possibly if I had turned around to address either of them, I might have observed his complexion at the time; but I did not.

×-Q. 61. So far as you observed, Mr. Douglass was the only one whose countenance looked paler than usual, either before or after the paper was removed?

A. Yes; Mr. Douglass was the only one that I looked at or spoke to at the time to which I have testified.

×-Q. 62. The last question was not limited to any par-

ticular time during the exhibition that took place in that room. I will now repeat the question: So far as you observed, Mr. Douglass was the only one whose countenance looked paler than usual, either before or after the paper was removed; is that correct?

A. That is a fact. The question may not be limited to any particular time, but my testimony about paleness was limited; that is why I answered as I did.

×-Q. 63. Do you know who dictated the typewritten statement bearing the title or inscription at the top, "Memorandum, Graphophone Grand," and to which you have referred?

A. I do not know; Mr. Mauro first showed it to me.

×-Q. 64. When it was first shown to you, was it already signed by Mr. E. D. Easton and by Mr. Mauro?

A. I do not remember; I think it was.

×-Q. 65. When it was first shown to you, did Mr. Mauro or any one tell you that Mr. Macdonald had also signed the same or a similar statement?

A. I think not.

×-Q. 66. You are unable to positively recall whether he did or did not?

A. I am unable. I had myself, before that, in conversation, told Mr. Mauro what had occurred.

(All the above answer except the first sentence thereof is objected to as a volunteered statement wholly irresponsible to the question.)

×-Q. 67. Did you return to New York on October 18, 1898, with Mr. Douglass, Mr. Babson and Mr. Easton?

A. I did.

×-Q. 68. Do you remember how you sat in the car coming back?

A. I remember that we were scattered—that is about all I remember. The train was crowded.

×-Q. 69. On that same day do you remember making a remark to Mr. Douglass and Mr. Babson about any strange coincidence where two men were working on the same invention at the same time?

A. I do not.

×-Q. 70. Are you able to state whether you made such a remark or not?

A. No, I am not able to state positively whether I did or not. I do not remember making any such remark.

×-Q. 71. In the statement headed "Memorandum, Graphophone Grand," to which you have referred, I notice that there is no reference to the presence of either Mr. Fisher or Mr. Phillips, the statement in the memorandum being, "This took place in the presence of Mr. Thomas H. Macdonald, Mr. E. D. Easton, and Mr. Andrew Devine." Is it your best recollection that Mr. Fisher was present at the particular time when the paper was removed from the machine?

A. I have no definite recollection about that. I know that he was present during the performance.

×-Q. 72. During the performance he sang to the machine while one or more records of his voice was made?

A. Yes.

×-Q. 73. Your Company, the American Graphophone Co., has filed a bill of complaint against Mr. Douglass in the United States Circuit Court of Chicago, to compel him to assign his application for patent involved in this interference to your Company, on the ground that he made the invention during a certain period when he was in the employ of your company as experimentalist, has it not?

(Objected to as immaterial, incompetent, calling for secondary evidence, and the statement contained in the question of the contents of the said bill of complaint is objected to as inaccurate.)

A. I understand that our Company has filed a bill of complaint, but if our attorney has assumed or conceded in that bill that Mr. Douglass invented the Graphophone Grand at any time, I do not think he has done justice to his client; I know he has not done justice to his client.

(Answer objected to as wholly irresponsible to the question, and the question is repeated.)

A. I understand that a bill of complaint has been filed against Mr. Douglass in the United States Court at Chicago on behalf of the American Graphophone Company, to compel him to assign his application for patent involved in this interference, but I understand the ground to be incorrectly stated in the question. Therefore I could not answer it with simply yes or no.

×-Q. 74. Please correctly state your understanding of the ground upon which that bill of complaint to compel Mr. Douglass to assign to your company his application for a patent which is involved in this interference is based?

(Same objection, and further objected to as not germane to the direct examination.)

A. I have never read the bill of complaint, but my understanding is that it is based upon the ground that if Mr. Douglass should be adjudged to have invented the Graphophone Grand, the invention ought to be assigned to us on the theory that it was invented by him while in our employ as an experimentalist. I understand the question calls for my understanding, and I am giving my understanding merely, not undertaking to state accurately the contents of the bill of complaint.

×-Q. 75. Mr. Douglass was in the employ of your company, The American Graphophone Company, as experimentalist during the period of time when he wrote to and

when Mr. Easton, the president of your company, received Mr. Douglass's letters of April 2, 1898, April 5, 1898, and March 23, 1898, was he not?

A. I think so, but I am not familiar enough with the dates of his employment and of the cessation of it to be positive.

×-Q. 76. That same bill of complaint also seeks to compel Mr. Douglass to assign to your company on the same ground his patent on the polyphone, does it not?

(Same objection.)

A. So I understand, but I have never read the bill.

×-Q. 77. Were you consulted or advised with in relation to the right, expediency or propriety of bringing this suit against Mr. Douglass to compel him to assign his polyphone patent and his application for patent which is involved in this interference?

(Objected to as immaterial and not germane.)

A. I think not.

×-Q. 78. I believe you stated that October 18, 1898, was the first time you had ever seen or heard a big cylinder talking machine, or the particular one which you then and there saw and heard?

A. That was the first time I had seen it or heard it.

×-Q. 79. Are you able to recall any particular remarks made by Mr. Easton during the exhibition of the Graphophone Grand on October 18, 1898, and if so, please state what they were?

A. He made none during the performance. If he made any afterwards, when everybody was inspecting the machine, I do not recall them.

×-Q. 80. Do you remember any particular remarks made by Mr. Babson either during the reproduction of the first selection or afterwards during the exhibition of the machine; and if so, please state?

A. I remember his remarking that the reproduction was very loud; he made that remark just after I turned to Mr. Douglass and spoke to him as I have testified. Beyond that I don't recall anything. After that I was not specially near him. I know that he was talking to Mr. Macdonald more or less about the mechanism of the machine. I mean, I know that because they were together by the machine, pointing to this and that, and talking.

×-Q. 81. Are you able to recall any particular remarks made by Mr. Douglass, other than that which you have already stated?

A. I remember hearing Mr. Douglass ask Mr. Macdonald some question about the reproducer, after we had gone up to look at the machine. Beyond that I do not recall anything further, because their remarks were not directed to me, nor was I very near him after that.

×-Q. 82. Are you able to recall any particular remarks made by Mr. Fisher, and if so, please state?

A. Yes; I talked to Mr. Fisher myself; complimented him on his voice, and the records he had made; asked him if he had used any extraordinary means of getting such a record, and he replied in substance, that he had not, and assured me that the merit was in the machine.

×-Q. 83. This conversation with Mr. Fisher took place prior to your hearing Mr. Fisher sing and make a record on the machine, there in your presence?

A. No; it took place after the whole performance was over; after I had looked at the machine as much as I cared to, and while the gentlemen with more mechanical

minds were still inspecting the machine and talking about it.

×-Q. 84. It is your recollection that after you had heard him sing and make a record in your presence, you still then afterwards asked him if he had used any extraordinary means of getting such a record?

A. Yes; that is my recollection. Mr. Fisher, although he made a record in my presence, did not make it under my immediate inspection, nor did I know whether he had not used a microphone, or something of that kind, to magnify the sound. I was greatly startled by the loudness of the record.

×-Q. 85. You have stated that during the reproduction of the first selection at this exhibition, on October 18, that Mr. Babson was standing next to you. Where was Mr. Douglass standing at this time, in relation to you and Mr. Babson and Mr. Easton?

A. I think what I said was, that I *thought* Mr. Babson was standing next to me, because I think I remember Mr. Douglass at the left end of the line, the end of the line to the left as we faced the horn; I know I was at the right.

×-Q. 86. That is to say, at the end of the line nearest the side of the room marked "Roll-top Desk"?

A. Yes; but we were standing very close together.

×-Q. 87. While you were watching the experiment made at the office of The Talking Machine Co. in Chicago, on December 7, 1899, was there any test made of the Douglass Exhibit 1897 Sound Record at a higher speed than the one which you have stated Mr. Macdonald counted as 172 per minute, and Mr. Munday as 180 revolutions per minute.

A. I do not remember any other test. I regarded the experimentation as ended at that point and went off with Mr. Babson to the back of the store, and really don't know what was done afterwards.

Re-direct Examination by Mr. MAURO:

Re-D. Q. 88. You have stated that sometime in the fall of 1898, you think it was December, you heard that Mr. Douglass claimed authorship of the invention known as the Graphophone Grand. Have you any means of fixing that time definitely?

A. I suppose it could be fixed by reference to office records; but I have no means. I simply mean that it was late in the fall in cold weather; perhaps in the winter a good long time after the visit to the factory.

Re-D. Q. 89. You don't remember the source from which the information came regarding Mr. Douglass' claim?

A. Mr. Easton told me; I think he said that Mr. George Lyle had telephoned it from Chicago that morning—the morning he told me; but it may have been that he said he had received a letter.

(Signed) ANDREW DEVINE.

NEW YORK, *January 24th, 1900*—10 A. M.

Met pursuant to adjournment.

Present, counsel as before.

The deposition of Mr. Devine is interrupted to take the deposition of Mr. Emerson.

VICTOR H. EMERSON.

And thereupon, VICTOR H. EMERSON, a witness produced on behalf of Macdonald, being first duly sworn, testifies as follows in answer to interrogatories by Mr. MAURO:

Question 1. Please state your name, age, residence and occupation?

Answer. Victor H. Emerson; 33 years old; superintendent of the Columbia Phonograph Company's record department; residence, 59 James Street, Newark, N. J.

Q. 2. Are you acquainted with Mr. Thomas H. Macdonald?

A. I am.

Q. 3. Are you also acquainted with Mr. Leon F. Douglass, who is here present?

A. I am.

Q. 4. Are you familiar with a machine known as the Graphophone Grand?

A. Yes, sir.

Q. 5. Did you ever have any conversation with Mr. L. F. Douglass in which that machine was referred to by him?

A. Yes, sir.

Q. 6. State when this was, and where, and what he said?

A. The conversation was held in New York, about two days after he went to the factory and saw the Graphophone Grand there. He said that after they showed him the Graphophone Grand, he said, "There goes my poor polyphone." That is all the conversation I had with him.

Q. 7. Did Mr. Macdonald ever say to you that the Graphophone Grand was some one else's idea and not his own?

A. No, sir.

Q. 8. Did you ever tell Mr. Douglass that Mr. Macdonald made such a remark, or anything like it?

A. No, sir.

Q. 9. Did you ever tell anyone that Mr. Macdonald made such a remark?

A. No, sir.

Cross-examination by Mr. ADCOCK:

×-Q. 10. When did you first see a Graphophone Grand, or big cylinder talking machine, at the factory of the American Graphophone Company, after the completion of the machine?

A. I do not remember the date, but it was a short time after Mr. Douglass was there.

×-Q. 11. Mr. Douglass was there on October 18, 1898, and the machine was then completed, and he saw and heard it. Prior to this date, and while the machine was in course of construction, did you see it?

A. I don't remember. The first recollection I have of the Grand was when I saw it at the factory, with Mr. Easton and several others.

×-Q. 12. Are you able to recollect the exact words Mr. Douglass used, and which you have testified he said in the conversation you had with him in New York a few days after he had seen and heard the Graphophone Grand at the factory?

A. The general tenor of the question and answer is what I remember; as to whether he said the particular words, word for word, I cannot guarantee that he did.

×-Q. 13. Don't you recollect that he said to you, "He thought when he first heard the Graphophone Grand, 'there goes my poor polyphone'?"

A. That is the general tenor of what he did say—"There goes my poor polyphone."

×-Q. 14. Don't you remember that he told you in this same conversation that when he first heard the machine it was covered up with a piece of paper?

A. Yes, sir; he did tell me that.

×-Q. 15. In your answer to Q. 6 you say: "He said that after they showed him the Graphophone Grand he said, 'There goes my poor polyphone.'" Did you mean to be understood as stating that he said those words at the time the machine was shown, or that he said them to you at the time of your conversation in New York?

A. My understanding was that he said that when they showed him the machine.

×-Q. 16. You have just stated in answer to ×-Q. 13 that your recollection of what he said to you was, he "Thought when he first heard the Graphophone Grand, 'there goes my poor polyphone.'" Now, what I wish is for you to state your best recollection as to whether Mr. Douglass's words to you were telling you what he thought when he first heard the Graphophone Grand, or what he said to others when he first heard it.

A. Mr. Douglass said, when he heard the Graphophone Grand, "I said there goes my poor polyphone." He did not say the Graphophone Grand, because it was not called the Graphophone Grand until a long time after.

×-Q. 17. And he told you that he made this remark when he first heard the machine?

A. Yes, sir.

×-Q. 18. And before the paper that covered it was removed?

A. He did not say anything about the cover; yes, he said "when he heard it"; he did not say anything at that conversation about removing it—the cover being removed.

(Signed) VICTOR H. EMERSON.

EDWARD D. EASTON.

And thereupon EDWARD D. EASTON, a witness produced on behalf of Macdonald, being first duly sworn, testifies as follows, in answer to interrogatories by Mr. MAURO:

Question 1. Please state your name, age, residence and occupation?

Answer. Edward D. Easton; age 43; residence, Arcola, New Jersey; occupation, president of the American Graphophone Co. and Columbia Phonograph Co.

Q. 2. How long have you been actively engaged in the talking machine business?

A. Since it began; I was actively engaged in starting it in, I think, 1887.

Q. 3. Have you, or not, since the year 1887, and down to the present time, paid particular attention to developments and improvements in this art?

A. I have.

Q. 4. Are you acquainted with Leon F. Douglass, one of the parties to this interference, and how long have you known him?

A. I am; and have known him for a number of years.

Q. 5. State whether or not during your acquaintance with Mr. Douglass your relations with him have been intimate and cordial until a recent time?

A. Yes; very friendly.

Q. 6. Give a general idea of the extent of your communications with Mr. Douglass, written and oral, from the time your acquaintance with him began down to the first part of the year 1899?

A. During all of that period he was either directly or indirectly engaged in the talking machine business. I saw him frequently and corresponded with him when we were not in the same city.

Q. 7. Was Mr. Douglass during that period interested in the progress of the business, and in the improvement of talking machines and appliances connected therewith?

A. He was very much interested.

Q. 8. Was it, or not, his practice to communicate freely with you on these subjects?

A. It was. He communicated very freely. He was constantly thinking, I believe, on the various subjects involved in the art, and he spoke and wrote to me hundreds, if not thousands of times, on such subjects. He seemed to be

deeply interested in everything pertaining to talking machines and appliances; in fact, to be engrossed in the subject.

Q. 9. Did he receive any encouragement from you in the direction of communicating his thoughts on this subject?

A. Always.

(Objected to as incompetent, inadmissible and as not calling for any fact.)

Q. 10. To what extent were you, during that period, interested in the development of plans or ideas looking to the improvement of the sound record in point of volume and quality?

A. Having made the talking-machine business my life work, I had the keenest and most constant interest in such development. It was always in mind as of pre-eminent importance.

Q. 11. Do you remember when you first saw and heard a sound record made and reproduced on the machine known as the Graphophone Grand?

A. I do; it was on October 18th, 1898, in the factory of the American Graphophone Co., at Bridgeport, Connecticut.

Q. 12. From whom did you first learn of that machine and of the invention embodied in it?

A. From Mr. Thomas H. Macdonald, the manager of the factory of the American Graphophone Company, and chief experimentalist of that company.

Q. 13. Was the Graphophone Grand constructed in consequence of any instructions given by you to Mr. Macdonald or in consequence of any suggestions made by you to him?

(Objected to as incompetent and inadmissible, as not calling for a statement of any fact or facts.)

A. It was not.

Q. 14. Who accompanied you to the factory of the American Graphophone Co. on the 18th day of October, 1898.

A. Mr. Andrew Devine, Mr. Leon F. Douglass and Mr. Henry Babson went there with me from New York City.

Q. 15. Were you seated with anyone on the train going to the factory on that day; and if so, with whom?

A. I remember generally that we paired off on the journey, and that I asked Mr. Devine to devote himself to Mr. Babson, while I talked with Mr. Douglass. I do not remember precisely how we were seated; but do remember distinctly that the general arrangement was as stated.

Q. 16. On the way to the factory did any such conversation occur, as stated by Mr. Douglass in his answer to Q. 114, as follows:

"I said to Mr. Easton, 'Why don't you make a larger cylinder for the purposes of getting a better record?' Mr. Easton said, 'Do you think it would be any better?' I said, 'Yes, I know it would, because I have tried it.' Mr. Easton said, 'How large would you make the cylinder?' I said, 'Six inches in diameter.' Mr. Easton said, 'How loud would the record be?' I said, 'About as loud as the man's voice.' Mr. Easton asked if there would be any use in making the cylinder still larger. I told him I thought six inches would be as large as practicable."

A. No such conversation took place at that time, nor did such a conversation take place at any other time.

Q. 17. Who was present when you first heard a reproduction on the Graphophone Grand?

A. Mr. Macdonald and myself.

Q. 18. Where did that occur?

A. In Mr. Macdonald's room, or office, in our factory.

Q. 19. Was the machine subsequently shown in your presence to any other persons on that day?

A. It was shown on that day to Mr. Devine, Mr. Douglass and Mr. Babson.

Q. 20. By whose wish or direction was it that the exhibition to these gentlemen took place?

(Objected to as incompetent and inadmissible, and not calling for any fact.)

A. By my direction.

Q. 21. When the machine was first exhibited to these gentlemen—that is, during the reproduction of the first selection rendered on it, after they entered, was the machine itself in view?

A. No; it was covered with newspaper.

Q. 22. State by whose direction that was done, and why if you know?

A. I do not remember by whose direction; Mr. Macdonald may have suggested it, or I may have done so; but the object was to first demonstrate the result without a disclosure of the means, in order to more completely mystify the auditors. Mr. Macdonald and I agreed upon doing it, but at whose suggestion I cannot say.

Q. 23. After the first reproduction on that instrument, did the machine remain covered?

A. I am not certain how many reproductions were made before the machine was uncovered; but I know it was uncovered and inspected by those present.

Q. 24. Was it uncovered by accident or design?

(Objected to as incompetent and inadmissible and as calling for a conclusion in the witness's mind and not for any fact or facts.)

A. It was uncovered by design, and those present were invited to inspect the mechanism. This they did.

Q. 25. Were you annoyed by the removal of the paper?

A. No; I directed it, or authorized it.

(Same objection.)

(Witness continues:) I should say the machine could not have been shown without my permission or direction.

Q. 26. Please state whether or not after the first reproduction, or at any other time during that exhibition, you made the following remark, or anything like it:

"Isn't it funny that Mr. Douglass was telling me about this very same thing on the train up here?"

A. I did not.

Q. 27. Did Mr. Douglass tell you about that same thing on the train going there, or at any previous time?

A. Certainly not.

Q. 28. Did Mr. Douglass at any time during the exhibition of the Graphophone Grand in Mr. Macdonald's office, say to you, or in your presence, "I knew it would do it, for I had tried it before," or anything of that sort?

A. He did not; not only did he say nothing whatever in that direction, but his manner and expression betokened the greatest amazement and wonder at the reproduction of the machine. He had been talking with me previously on the subject of the polyphone, of which his mind appeared to be full; and after hearing the Graphophone Grand, he seemed not only amazed, but somewhat chagrined, and at once remarked, "When I first heard that I thought it was all up with the polyphone, or words to that effect; but afterwards I remembered I could put the polyphone on that," or words to that effect. I do not pretend to give his precise words, nor could I do so; but I recollect the substance very clearly.

Q. 29. What is the purpose or improved result which the polyphone is designed to accomplish?

A. Mr. Douglass' claim was, that by using two reproducers, the volume of sound was greatly increased; and his suggestion was that by applying the principle of the polyphone to the Graphophone Grand that result would follow; therefore, the Graphophone Grand might enable him to find another field for the polyphone. I should say he was at that time full of the polyphone subject; and I understood that to have been his business in the East.

(That portion of the witness's answer which states conclusions, appearances and feelings, is objected to as incompetent and inadmissible.)

Adjourned to Thursday, Jan. 25, 1900, 9.45 A. M.

NEW YORK, *January 25th, 1900.*

Met pursuant to adjournment.

Present: Counsel as before.

Direct examination of Mr. Easton continued by Mr. Mauro:

(Douglass' counsel states that the witness appearing at 11.30 o'clock, his examination is continued:)

Q. 30. Prior to October 18, 1898, did Mr. Douglass at any time communicate to you an improvement in making sound-records by imparting to the record tablet an unusually high surface speed?

(Objected to as leading and suggestive, and also because it calls for a conclusion and not for any statement of fact.)

A. He did not.

Q. 31. In answer to Q. 88, Mr. Douglass testified that the first time he explained to you the invention forming the subject-matter of this interference, was in the month of Sep-

tember, 1897, at the office of the Columbia Phonograph Co. in Chicago, and he specifically testifies that he stated to you, "That by making a larger cylinder a very much better record could be made"; and, further, that he had made records on the small cylinder at twice the ordinary speed with very great and improved results. Please state whether or not such a conversation occurred at the time stated by Mr. Douglass, or at any other time?

(Question objected to as leading and incompetent and inadmissible and improper; the proper question to be put to the witness should be what Mr. Douglass and Mr. Easton did say in this conversation.)

A. No such conversation ever took place.

Q. 32. In certain letters introduced by Mr. Douglass written in March and April, 1898, a suggestion is made as to the use of a large sized blank of the Tainter type. Please state whether or not there was anything novel to you in that recommendation or which you regarded as important?

(Question objected to as incompetent and inadmissible, what the witness may have regarded at that time or at any time being no evidence.)

A. No. The suggestion was very old and had been made many times by many people. I clearly recall a similar suggestion made at least eight years previous to that time, possibly earlier. It was made to me by Mr. Charles E. Foster, a patent attorney of Washington, D. C., on a railroad train between New York and Washington, and was accompanied by a sketch, which Mr. Foster then made.

Q. 33. Do you recall any specific instance in which steps were taken to design a machine to hold a blank of unusually

large diameter, and if so, state briefly your recollections as to that matter?

(Objected to as incompetent and inadmissible.)

A. In the latter part of 1896 an application was made to me for such a machine for the purpose, as I now recall, of securing cylinders that would hold very many more words than the standard cylinder. I conferred with Mr. Macdonald on the subject and hold in my hand a letter dated January 7th, 1897, in which he reported thereon.

Q. 34. Please produce that letter to be offered in evidence.

(The witness produces the letter of January 7th, 1897.)

(Same objection.)

Q. 35. Can you identify the signature to that letter?

(Same objection.)

A. Yes; it is the signature of Mr. T. H. Macdonald, the manager of our factory.

(The letter produced by the witness is offered in evidence to be marked "Macdonald Exhibit Macdonald Letter of Jan. 7, 1897.")

(Same objection.)

Q. 36. When and how did you first learn that Mr. Douglass claimed to be the inventor of the Graphophone Grand?

A. Near January first, 1899, from Mr. George W. Lyle, the manager of our Chicago office. I think he first mentioned it when talking with me on the telephone, and followed the telephonic information by a letter. I only give the date approximately.

Q. 37. Please look at "Exhibit Lyle Letter of Dec. 31, 1898," and state whether or not that is the letter referred to in your last answer?

A. My impression is this is not the letter, but that it came a short time later.

Q. 38. Do you remember any action taken by you with reference to the letter you had in mind, in answer to Q. 36, and if so, what?

A. I distinctly remember that upon receipt of information to the effect that Mr. Douglass seriously and definitely claimed inventorship in this direction, that I at once placed the matter in the hands of our patent counsel, Mr. Mauro.

Q. 39. Will you please look at the letter marked, "Macdonald's Ex. Lyle Letter, Jan. 11, 1899," and state whether or not that is the letter you had in mind in answer to Q. 36?

(Objected to as leading.)

A. It is. The letter bears a reference slip showing its immediate reference to Mr. Mauro.

Q. 40. In Mr. Lyle's letter of December 31, 1898, Mr. Douglass is reported to have said that he himself had made application for a large type machine over a year ago. Did you understand that as an intimation that Mr. Douglass claimed to have invented the Graphophone Grand?

(Objected to as incompetent and inadmissible, and improper, as leading and also calling for the witness's secret understanding and not for any fact.)

A. Certainly not.

Q. 41. In a letter written by Mr. Douglass to you, and introduced in evidence by him, the letter being dated Nov. 16, 1898, he says, referring to the Graphophone Grand, that he was interested in the machine because it was one of his suggestions. Did you or not understand at that time

either from that letter, or from any other sources of information, that Mr. Douglass claimed to be the inventor of the Graphophone Grand?

(Last objection repeated.)

A. Certainly not.

Q. 42. Please look at the paper I now show you, headed "Memorandum, Graphophone Grand," and particularly at the paragraph written in ink thereon over your signature, and state whether or not you remember signing that statement, and if so, when?

(Objected to as incompetent and inadmissible, irrelevant and immaterial.)

A. I remember the statement, and I remember signing it. It is correct.

Q. 43. Referring to the exhibition of the Graphophone Grand on October 18th, 1898, please state who, if anyone else, was present in addition to the persons already named by you?

(Objected to as leading and suggestive, and as grossly improper after showing the witness the memorandum referred to in Q. 42.)

A. Mr. J. J. Fisher was present and made one or more records as a part of the exhibition. Mr. Walter P. Phillips, the assistant manager of the factory, was present. I do not recall any others in addition to those already stated in a previous answer, to wit, Mr. Andrew Devine, Mr. Thomas H. Macdonald, Mr. Leon F. Douglass, Mr. Henry Babson and myself.

Cross-examination of Mr. Easton by Mr. ADCOCK :

×-Q. 44. How long have you been president of the American Graphophone Company?

A. Since April 8th, 1895.

×-Q. 45. What other office do you hold in that company?

A. I am director, general manager, and counsel.

×-Q. 46. You are an attorney at law?

A. I am.

×-Q. 37. How long have you been general manager of that company?

A. Since April 10th, 1893.

×-Q. 48. How long director?

A. I was elected a director on October 14th, 1889, and have held that position ever since with intermissions.

×-Q. 49. When were the intermissions and for how long?

A. I am unable to answer without reference to the record. I have been a director continuously at least since I became president.

×-Q. 50. How long have you been counsel for that company?

A. I am unable to state without reference to the record, but I think since October 17th, 1895.

×-Q. 51. Are you now and have you been for many years largely interested in that company as a stockholder?

A. I have been interested as a stockholder since its organization. I have been largely interested only since my election as president.

×-Q. 52. As manager and president of the American Graphophone Company, you now have, and have had for several years, chief control and management of the affairs of that company?

A. I have had such control since I became president.

×-Q. 53. You have stated that Mr. Thomas H. Macdonald is the manager of the factory of the American Graphophone Company and chief experimentalist of that company. How long has he been factory manager and chief experimentalist of the American Graphophone Company?

A. I cannot say exactly; but certainly since some time in 1892.

×-Q. 54. And since that time he has had chief charge of the experimental work of the American Graphophone Company?

A. Yes, under my direction while I have been president. He occupied that position before I was active in the management, and during a period when I had nothing to do with the management. I found him in the position when I took the management.

×-Q. 55. Since you became general manager in 1893?

A. Yes.

×-Q. 56. Since you became manager in 1893, have you been accustomed to giving Mr. Macdonald directions in regard to experimental work of the American Graphophone Co. up to the present time, and to consult and advise with him in relation to the same?

A. Most assuredly; but of course this by no means should be taken to overlook the fact that he frequently originates experiments and I hear of them after they have been tested. It is also true that I often directed attention initially to problems of interest and importance. Some of his best work has, however, come to me in the nature of a surprise after his experiments have reached success.

×-Q. 57. Were you present in Chicago when testimony was being taken on behalf of Mr. Douglass in this interference case last December?

A. I attended several hearings there.

×-Q. 58. Have you heard or read the testimony of Mr. Douglass given in this case?

A. I think I have heard or read most of it; but I am not sure. I have not followed the case closely.

×-Q. 59. Have you heard or read Mr. Macdonald's deposition in this case?

A. I heard a few words of it. I was present in the room on one occasion only, and for a short time on other business. I have glanced very casually over the typewritten report. I think I know generally the substance of his testimony so far as it relates to the merits of the case.

×-Q. 60. You stated that you first learned of the invention embodied in the Graphophone Grand from Mr. Thomas H. Macdonald. When did Mr. Macdonald first disclose to you said invention?

A. The first complete demonstration of the invention was on October 18, 1898, for that was the time I first heard the Graphophone Grand. I knew previously of the progress of the work and saw parts in process of construction on my visits to the factory, which were frequent.

×-Q. 61. His first disclosure to you of anything relating to the Graphophone Grand, or the invention embodied in it, then took place during the period of time that the first Graphophone Grand machine was in course of construction; is that so?

A. I cannot answer your question precisely as it is framed, for it seems capable of many meanings. His first disclosure to me of the Graphophone Grand as the most marvelous and important improvement for many years in the talking-machine art, took place during the period of its construction, and culminated with the exhibition to which I have already referred. I did not until the exhibition was given fully appreciate the greatness of the invention. Previous to that

time I looked upon it as a piece of experimental work, the importance of which was not determined.

×-Q. 62. Mr. Macdonald has stated substantially in his testimony that you were the first person to whom he ever disclosed the invention forming the subject-matter of this interference, and consisting in materially increasing the surface speed at which the record cylinder blank was being moved while the record was being formed thereon by the recorder, and that this first disclosure to you took place on October 18, 1898. Is that your recollection of the fact; and if not, what is your recollection of the fact?

A. I am unable to see how by any possibility I could give testimony on that subject.

×-Q. 63. I am only asking you to state if it is correct so far as relates to the time of his first disclosure to you of the matters stated in the question?

A. I do not yet find the question clear.

×-Q. 64. Is it true that Mr. Macdonald first disclosed to you the invention forming the subject-matter of this interference, and consisting in very materially increasing the surface speed at which the record cylinder blank is being used while the record is formed thereon by the recorder, on October 18, 1898?

A. It is true that he then made his first complete demonstration of the invention. It is also true that he spoke of the matter from time to time while the parts were being made and perhaps even earlier while the drawings were being made. It was on October 18th, 1898, that the invention received its great emphasis and dignity in my mind, because I then heard it for the first time.

×-Q. 65. In your last answer you referred to the drawings from which the Exhibit First Graphophone Grand Machine was built, and which was used for working drawings for that machine, did you not?

A. I mean to refer to all the steps that were taken in connection with the construction of that machine.

(Answer objected to as wholly irresponsible to the question. The question is repeated.)

A. In my answer to Q. 64 the reference to drawings means any drawing which may have been made for the invention in question.

(The answer is objected to as irresponsible to the question.)

×-Q. 66. Is it not the fact that when you stated in your answer to ×-Q. 64 that, "It is also true that he spoke of the matter from time to time while the parts were being made and perhaps even earlier while the drawings were being made," that you there meant by "parts" and "drawings" the parts and drawings of and for the machine that has been offered in evidence in this case and marked "Macdonald's Exhibit First Graphophone Grand?"

A. Why, certainly.

×-Q. 67. Now, please state what, if anything, Mr. Macdonald said to you at any time while the machine marked "Macdonald's Exhibit First Graphophone Grand" was in course of construction, or while the drawings for it, dated August 12, 1898, were being made, in relation to said drawings or parts, or the machine for which they were intended?

A. I recall none of his precise words; but do remember that he spoke from time to time of the work and of his hopes in connection with it. One feature he mentioned several times was an expectation or belief that this machine would be valuable in insuring very much finer duplicate records. That was a branch of the invention in which he was interested and which was followed.

×-Q. 68. Did he, during this time and prior to October 18, 1898, say anything to you about making two, three or more duplicates at a time from a large diameter master record to be made upon the machine?

A. It is quite likely. I remember that the general subject of its value in duplicating was discussed.

×-Q. 69. Do you recall that he said anything to you during this time, prior to October 18, 1898, about making the record at any particular speed?

A. As I have said, the invention received emphasis and great dignity in my mind only on and after October 18, 1898. Previous to that date I have only a general recollection, as stated, and not a clear memory of just what took place in our various interviews, as there was nothing extraordinary to remain in my memory. Therefore I cannot answer your question precisely.

×-Q. 70. You do not then remember that he stated anything to you about making the sound record on this machine for which the drawings and parts were intended at any material increase of surface speed?

A. I have already answered that I have no distinct recollection at this time on that subject.

Recess until 2 P. M.

×-Q. 71. When did the Columbia Phonograph Company first start or begin to have offices on Broadway, New York, near Cortlandt street?

A. I am not certain, but I think about September, 1895. I can determine this date if important.

×-Q. 72. Give your best recollection as to how many times the reproduction was repeated on October 18, 1898, on or with Macdonald's Exhibit First Graphophone Grand, prior to the removal of the paper covering the machine, at

the time the machine was first exhibited in operation to Mr. Douglass, Babson, and Devine?

A. I should say once. It is only fair to add that I am not certain on this point.

×-Q. 73. After the paper was removed from the machine, what, if anything, are you able to recollect that Mr. Phillips said?

A. Nothing.

×-Q. 74. What, if anything, that Mr. Fisher said?

A. Nothing.

×-Q. 75. What, if anything, that Mr. Babson said?

A. Nothing.

×-Q. 76. What, if anything, that Mr. Devine said?

A. Nothing.

×-Q. 77. What, if anything, that Mr. Douglass said?

A. "When I heard that machine, I thought it was all up with the polyphone; but afterwards I remembered I could put the polyphone on that;" or some similar form of words conveying the same meaning. I do not undertake to be precise as to the language; but as to the substance I am positive. After the Graphophone Grand had been operated and the paper had been removed, all present to whom the machine was new gathered around it and expressed great interest in its mechanism. Many questions were asked of Mr. Macdonald and answered by him. Mr. Fisher and Mr. Phillips did not take any active part in this matter. Mr. Douglass, Mr. Babson and, I think, Mr. Devine, participated; but my recollection is that Mr. Douglass expressed more interest in the details, and asked more questions than any of the others. It should be remembered that this was an epoch-making invention and demonstration, and that it was of great importance to all present who were interested in the art. To me it seemed of the utmost importance; and knowing, as I did, the interest of Mr. Douglass generally in

the subject I paid attention to the impression it made upon him.

(All of the above answer excepting the first two sentences thereof is objected to as a volunteered statement by the witness, wholly irresponsible to the question.)

×-Q. 78. After the paper was removed from the Graphophone Grand machine in Mr. Macdonald's office on October 18, 1898, what, if anything, are you able to recollect that you said?

A. I am unable to recollect anything of my words on that occasion. I remember generally that the conversation took a form generally consistent with the disclosure of a great advance in the art to persons interested in that art. For instance, every expression that I can recall, by whomsoever made, was of wonder, surprise, amazement, and delight. These were numerous. They may have been made by me, and probably were made by everybody present. I only remember Mr. Douglass's polyphone remark because it fitted so perfectly with his mental attitude. He had, as I remember, come here on polyphone business; he had shown in his conversations with me that his mind and his hopes were engrossed with that subject; and there was naturally a tableau which could not easily be forgotten by me when I witnessed in his presence, and when he witnessed, a demonstration so far surpassing anything he was claiming for the polyphone or had ever claimed for any device. There was a peculiar situation in that respect which impressed his manner and his words upon my memory.

(All of the above answer, excepting the first sentence thereof, is objected to as a volunteered statement of the witness wholly irresponsible to the question. Also as a pretended statement of witness's thoughts and feelings, which are in no sense evidence.)

×-Q. 79. To whom was Mr. Douglass's remark addressed, which you have stated in answer to ×-Q. 77?

A. It was addressed to me, but I do not know whether others were immediately by me or not. Mr. Douglass and I went to Bridgeport together; but in the room were several people, and it is quite possible Mr. Devine and I, or others, may have been together, and in that sense the remark may have been addressed to the group. I have no positive recollection on that point, only claiming to remember the substance of the remark, following soon after the exhibition of the Graphophone Grand.

×-Q. 80. You do not recollect whether others than yourself were giving attention to what Mr. Douglass said when he made that remark?

A. I do not have any recollection on that point.

×-Q. 81. Do you recollect after having in Mr. Macdonald's presence alone heard the machine give a reproduction, and covering the machine with a piece of paper, yourself going to the room where Mr. Devine, Mr. Douglass and Mr. Babson were waiting, and inviting them to come and hear the machine?

A. I do not; but the invitation must have come from me directly or indirectly, as otherwise they could not have heard it.

×-Q. 82. Are you able to recall that after getting to the door, entering the room from the hall, you left them waiting in the hall for a few moments, and that you first entered the room and then came back to the door and asked them to step in?

A. No.

×-Q. 83. Do you recollect that you did not do as stated in the above question?

A. No.

×-Q. 84. Are you able to recall that after the exhibition

of the Graphophone Grand in Mr. Macdonald's room on October 18, 1898, that Mr. Douglass exhibited his polyphone in operation, and that you stated that it compared favorably with the Graphophone Grand, or words substantially to that effect?

A. I think he did exhibit the polyphone on that occasion; and it is quite likely that, having observed, first, his enthusiasm on the subject of the polyphone, and, second, his very evident and keen discomfiture on hearing the Graphophone Grand, I may have made some remark intended to be consoling and friendly when the polyphone was exhibited. I do not remember the remark, or that there was one of the nature you specify.

×-Q. 85. Are you able to recollect that after Mr. Douglass had exhibited his polyphone in operation, that Mr. Macdonald asked you if he should bring out and show a polyphone construction that he had made?

A. I remember an exhibition of the polyphone by Mr. Douglass, and that it was followed by an exhibition of a polyphone which Mr. Macdonald had been directed to make; but whether that exhibition took place on October 18, 1898, or not, I am uncertain. Such an exhibition did take place.

×-Q. 86. By whom was Mr. Macdonald directed to make his polyphone, to which you have above referred?

A. By me.

×-Q. 87. When did you direct him so to do?

A. At some period during the agitation of the subject by Mr. Douglass. My recollection is Mr. Macdonald made two or more separate and distinct models. Mr. Douglass wished us to design and make operative models of the polyphone which we would undertake to manufacture; and Mr. Macdonald's work was done at my direction on the urgent request of Mr. Douglass, who, at that time, had not succeeded

in making a polyphone which was satisfactory. I might add that Mr. Macdonald did not succeed either.

×-Q. 88. Mr. Macdonald has stated in his testimony substantially that he made two polyphone models, one having three reproducers arranged clover-leaf fashion with their reproducing points all close together and traveling in the same thread of the sound record, one after another, and the other having two reproducers arranged side by side, and with the reproducing points close together and tracking tandem one after another, in the same thread of the sound record; and that he made them as nearly as he could recollect, about a year prior to October 18, 1898, under your directions, and stated that you had sent to him at the factory a number of Mr. Douglass's letters relating to the polyphone, and when I asked him to produce the letters, he said he had returned them to you. Will you now produce those letters for me to see?

A. I cannot now produce them, as they are not now in my possession.

×-Q. 89. In whose possession are they now?

A. In the files of the American Graphophone Company, or in the possession of the counsel of that company. I have no specific knowledge of those letters, as I have not seen any such letters since about the time they were written; but I remember generally corresponding with Mr. Douglass on the subject, and all the letters written and received are in their appropriate place. Whether I sent any to Mr. Macdonald, I do not know; nor do I know what his testimony was on that subject.

×-Q. 90. Will you please produce the letters which you state are in the possession of your company, the American Graphophone Company, who is the assignee of Mr. Macdonald's alleged invention and application involved in this in-

terference, or in the possession of its and Mr. Macdonald's counsel, Mr. Mauro?

(Objected to by counsel for Macdonald as the subject inquired about is immaterial, and specifically because the question does not identify any letters, and because the witness has already stated that he has no personal knowledge that any letters were sent to Mr. Macdonald, and if so, what they were. The request is not only entirely irrelevant and tending simply to undue prolixity, but is manifestly one with which it is impossible to comply.)

(Counsel for Douglass states that the letters called for are the letters of Mr. Douglass to Mr. E. D. Easton, or to him and the American Graphophone Company from Leon F. Douglass, and relating to the polyphone, and which Mr. Macdonald testified were sent or shown to him by Mr. Easton, and returned by him to Mr. Easton, and to which Mr. Macdonald referred in his testimony in relation to this matter. Counsel further states that these are believed to be not only material, but very necessary to the proper determination of the issues of this case and a full disclosure of the whole truth, and facts in relation thereto, and notice is hereby given to the opposite party in this interference, to wit, Thomas H. Macdonald, and his assignee, the American Graphophone Company, and their counsel, Mr. Mauro, to now produce the letters called for, and that in case they are not so produced, motion will be made to exclude from the record in this case the deposition given by the party Thomas H. Macdonald, and the deposition given by the president of the party, the American Graphophone Company, the assignee of Thomas H. Macdonald.)

(Counsel for Macdonald declines to produce anything at all in answer to the foregoing request, and requests counsel for Douglass that, if he considers this refusal to be in disregard of his rights, he will resort to his appropriate legal remedy.)

×-Q. 91. Prior to October 18, 1898, did you ever tell Mr. Douglass, either orally or in writing, that Mr. Macdonald, or you, or anyone at your factory, had ever built or made any or either of these polyphone models, or that you were engaged in making them?

(Objected to as immaterial.)

A. Prior to the exhibition of the polyphone models, the date of which I cannot give from memory, I did tell Mr. Douglass that they were being made. They were undertaken at his request, and I gave him such information as I had.

×-Q. 92. When and where did you give him this information?

(Same objection.)

A. I do not remember.

×-Q. 100. You can neither remember when nor where?

A. No.

×-Q. 101. Do you remember whether the information was conveyed orally or by letter?

(Same objection.)

A. I remember talking with him on the subject frequently. He was full of it, and was eager for us to make the desired development.

×-Q. 102. Do you remember who, if anyone, was present when you told him that you, or your company, or Mr. Mac-

donald, had made either this clover-leaf form model or the side-by-side form model of polyphone?

(Same objection.)

A. I do not.

×-Q. 103. Don't you know, Mr. Easton, that the truth is that Mr. Douglass never asked you, or your company, or Mr. Macdonald to make any sort of polyphone prior to October 18, 1898?

(Same objection.)

A. I am not now attempting to fix the date; but I know the truth is precisely the opposite of what you state; and that Mr. Douglass did repeatedly ask and urge us to do that which he had thus far been unable to do, to wit, make an operative polyphone, or successful polyphone attachment.

×-Q. 104. Prior to October 18, 1898, did he ever make such a request to you, or your company, the American Graphophone Company, or Mr. Macdonald, in writing or by letter; and if so, please produce the writing or letter?

(Same objection.)

A. I am unable to state as to the date; and I have made no examination as to letters; I have confined myself to the positive assertion that he made numerous such requests.

×-Q. 105. Please look at your letters to Mr. Douglass, dated October 21, 1898, October 22, 1898, October 26, 1898, November 3, 1898, November 4, 1898, and November 7, 1898, which I now hand you for inspection, for the purpose of refreshing your recollection; and I ask you if you still state under oath that Mr. Douglass ever prior to October, 1898, asked you or your company or Mr. Macdonald, to make these or any other polyphone models for him prior to

October 18, 1898, and also whether you still state under oath that prior to that date you ever told Mr. Douglass in any way, either orally or in writing, that you or your company or Mr. Macdonald had made the two polyphone models which you and Mr. Macdonald have stated under oath were made prior to October 18, 1898, and one of which, the clover-leaf arrangement one, was shown to Mr. Douglass on that day?

(Objected to as immaterial and as containing assumptions, some of which are palpably false.)

A. I disclaim all responsibility for so much of the question as assumes statements which I have not made. I see nothing in the letters handed me to cause any modification of the testimony I have given. I have expressly refused to fix the date mentioned in the question, and have disclaimed the ability to do so at this time. I refer counsel for Douglass to my testimony already given on that subject.

×-Q. 106. And you still state under oath that prior to October 18, 1898, that you had ever told Mr. Douglass, either orally or in writing, that you, or your company, or Mr. Macdonald, had built the two polyphone models, before described, or any polyphone model, prior to October 18, 1898?

(Same objection.)

A. In view of the fact that I have expressly stated I was unable at this time to fix the date with relation to October 18, 1898, I do not understand why counsel for Douglass continues to put his question in this form and to use the word "still." I do say that I see nothing in the letters which I have just inspected, which, to my mind, has any

bearing on the subject of the date, and therefore, they do not help me to fix the date.

×-Q. 107. You know, do you not, that Mr. Douglass has never been at your factory since October 18, 1898, until he was there last week attending the taking of Macdonald's testimony in this case?

A. I do not know whether he has or not; but I see no connection between whatever the fact may be in that respect and the question.

×-Q. 108. Prior to the time when Mr. Douglass was first shown the clover-leaf arrangement of polyphone which Mr. Macdonald made, did you ever tell Mr. Douglass, either orally or in writing, that you or your company or Mr. Macdonald had ever made such a polyphone or any other construction of polyphone?

(Objected to as immaterial.)

A. The clover-leaf polyphone I do not remember accurately the history of, beyond the fact that it was exhibited to Mr. Douglass and was a failure. I do not remember the date of its exhibition, or of its construction. I remember making several polyphone attachments or attempts at the request of Mr. Douglass. I remember these attempts were made because he asked to have them made; and therefore I remember that he knew before they were made that they were to be made.

×-Q. 109. Do you still state under oath that prior to the time when you first showed to Mr. Douglass the clover-leaf form or construction of polyphone, or any other form or construction of polyphone made by you, or your company, or by Mr. Macdonald, that Mr. Douglass had ever requested you, or the American Graphophone Company, or Mr. Macdonald to make that, or any other model of polyphone?

(Same objection.)

A. The same answer.

×-Q. 110. The question is repeated and a specific answer is requested.

A. The same answer.

×-Q. 111. Do you mean to state that Mr. Douglass did or did not make such a request prior to his being shown the first construction of polyphone that you, or your company, or Mr. Macdonald made?

(Same objection.)

A. I mean to state nothing on that subject, as I have no clear recollection. If it is important my recollection might be refreshed by reference to data, or further consideration. It is not a matter I would be likely to carry clearly in mind until this time.

Adjourned to Friday, Jan. 26, 1900, 9.45 A. M.

NEW YORK, *January 26th, 1900—9.45.*

Met pursuant to adjournment.

Present: Counsel as before.

Cross-examination of Mr. Easton continued by Mr. AD-
COCK:

×-Q. 112. You have been for several years president, director and largely interested as stockholder of and in the Columbia Phonograph Co., have you not?

A. Yes; since its organization.

×-Q. 113. You have been acquainted with Leon F. Douglass since about March, 1892, and he was in the employ of the American Graphophone Co. from about March 1st, 1892, to July 1st, 1892; this is substantially correct, is it not?

A. Without wishing to take any responsibility as to exact dates, I think the question is correct.

×-Q. 114. You have stated in your direct testimony, that

Mr. Douglass always received encouragement from you in the direction of communicating to you his thoughts on various subjects involved in the Graphophone, phonograph or talking machine art, during the period of your acquaintance with him down to the beginning of the year 1899; but you have not stated what, if anything, you did to so encourage him to communicate his thoughts to you. Please state briefly what you did to encourage him in this regard?

A. To so encourage him, I made our relations as pleasant and informal as possible; I endeavored to show extraordinary appreciation of his suggestions and to find in them at least something worthy of approval, even if broadly the plan did not seem valuable. I made it easy for him to communicate with me and with my associates. As an illustration I can remember an incident early in our acquaintance, when he, having a workshop in his bedroom, which was near my house, rang my door-bell three or four times, or more, in one evening, the last time rather late, in his eagerness to show several stages of his work. He did communicate very freely and very frequently; and I encouraged it.

×-Q. 115. You have stated that you have had the keenest interest in everything pertaining to the making of a better sound record in the talking-machine business or art. Did your keen interest in getting a better sound record continue during the years 1897 and 1898, up to October 18, 1898?

A. Surely; and is still with me. Our motto is constant improvement.

×-Q. 116. State your best recollection as to how you and Mr. Douglass and Mr. Babson and Mr. Devine were relatively seated in the railway car on October 18, 1898, on the train going from New York to Bridgeport?

A. Beyond the fact that Mr. Douglass and I sat together, and that Mr. Babson and Mr. Devine sat together, at some

little distance, I am unable to state. My best recollection is that we were thus seated; but I do not wish to lay much stress upon the details of our seating.

×-Q. 117. You have heard or read Mr. Douglass', Mr. Babson's and Mr. Devine's testimony in relation to how you were seated in the car, have you not?

A. I think I heard or read Mr. Douglass' and Mr. Babson's statements; not Mr. Devine's.

×-Q. 118. But you know generally what Mr. Devine's testimony is generally on this point?

A. Not as to the seating specifically. I have not paid any attention to that detail.

×-Q. 119. Do you remember the circumstance of you and Douglass, Babson and Devine eating lunch on the car, or some fruit and sandwiches, which were procured before the train started?

A. I do not; but it is quite possible. I have often eaten lunch on the train.

×-Q. 120. Are you not able to recollect while eating your lunch on the car, on a train to Bridgeport from New York, on October 18, 1898, you and Douglass, Babson and Devine, sat facing each other, two on one seat facing the engine, and two on a reversed seat with their backs to the engine?

A. I have already stated that I do not remember such seating; and that my recollection of our positions on the journey is limited to the general recollection that Mr. Douglass and I were together and Mr. Devine and Mr. Babson were together, not very close. In other words, that we were carrying out the arrangement which I made that Mr. Devine should devote himself to Mr. Babson while I talked with Mr. Douglass. I do not mean by this that there was no general conversation at any time during the trip. I simply say that is a detail which I do not remember.

That trip was one of hundreds which I have made to Bridgeport, and would have no importance in my mind unless by reason of some extraordinary development, which it did not have. That, however, was not true, for instance, of Mr. Devine, who seldom goes to Bridgeport, and perhaps of the other members of the party. With me it was a trip so common that I would indeed be a remarkable man if I could remember the unimportant details.

×-Q. 121. Then, you have no definite recollection as to whether you four were sitting facing together or not?

A. Not a definite recollection.

×-Q. 122. Do you have any definite recollection how you four were seated in relation to each other in the car on your return trip from Bridgeport to New York?

A. I remember quite distinctly asking Mr. Devine to devote himself to Mr. Babson. I therefore assume that such was the case on the return trip; but do not attempt and expressly disclaim any ability to state positively on this point from recollection of the exact circumstance of seating.

×-Q. 123. If you can recall anything that Mr. Douglass did say to you on October 18, 1898, on the train from New York to Bridgeport, please state what it was?

A. I remember generally that he was full of the polyphone subject.

×-Q. 124. But you are unable to recall any particular thing he said?

A. If you mean his precise words, I am unable.

×-Q. 125. I do not mean his precise words, I mean in substance?

A. I do not remember any other subject; and am very sure nothing else of importance was mentioned. On further reflection I do remember this incident: Mr. Babson had been through the Edison Phonograph Works. Mr. Douglass had claimed that Mr. Babson was quite a partisan

of the National Phonograph Company, and that he, Douglass, was embarrassed by that fact in his association with Babson, as he, Douglass, was, and always had been an ardent partisan of the American Graphophone Co. He, Douglass, wished that Babson might see the factory of the American Graphophone Co. and thus have a demonstration of what Douglass had always represented to him, to wit, that the Graphophone factory and facilities were vastly superior in every respect to those of the Edison Phonograph Works; and Douglass thought with that demonstration it would be easier for him to secure Babson's co-operation in the talking-machine business in which they were jointly interested. This was the reason why Babson was present on that occasion. If I am not mistaken, it was his first visit to our factory, while Mr. Douglass had been there many times. That was one of the subjects of conversation.

×-Q. 126. What, if anything, are you able to recall that you said to Mr. Douglass on the train to Bridgeport?

A. Nothing further.

×-Q. 127. On October 18, 1898, at your Bridgeport factory, prior to inviting Mr. Douglass, Mr. Babson and Mr. Devine in to hear the machine, and when you and Mr. Macdonald were alone together in the room where the Exhibit First Graphophone Grand Machine was, please state your best recollection as to what you said, and what Mr. Macdonald said with relation to covering the machine with a piece of paper?

A. After I had recovered from my surprise, amazement and delight at hearing for the first time what to me seemed the superhuman results of the Graphophone Grand, the question of what to do with our visitors probably arose; and remembering that Mr. Douglass was surcharged with polyphone enthusiasm, and that the object of his work was improved reproduction, my recollection is that we decided

to give him an exhibition of how it could really be done and planned to accompany this in the beginning with mystery, in order to make the exhibition more effective. In other words, it was in the nature of what you might call a theatrical opportunity or situation.

(The answer is objected to as being wholly irresponsible to the question.)

×-Q. 128. I wish you to state your best recollection as to what you said in relation to covering the machine with a piece of paper, and your best recollection as to what Mr. Macdonald said in relation to covering the machine with a piece of paper prior to exhibiting it in operation to Mr. Douglass?

A. I have none beyond the fact that we agreed upon so doing. In my previous answer I desire to change the word "theatrical" to dramatic, to better express my meaning.

×-Q. 129. Mr. Devine has testified substantially to the effect that he observed that Mr. Douglass turned pale when the paper that covered the machine was removed; do you recollect having observed this, or what is your recollection as to this?

A. I did not hear Mr. Devine's testimony, and therefore do not know whether you have correctly stated it; but Mr. Devine has a marvelous memory for detail, and if he so testified I have no doubt it is a fact. Beyond what I have already stated, I would not attempt to say what Mr. Douglass did. I refer you to my testimony.

×-Q. 130. Then you have no recollection as to whether Mr. Douglass did or did not appear much paler than usual, when the paper was removed from the machine?

A. I have nothing to add on that point.

×-Q. 131. The question is repeated and the witness is respectfully asked to give a categorical answer to the ques-

tion whether he does or does not recollect that Mr. Douglass appeared much paler than usual at the time the paper was removed?

A. I decline to express any opinion as to his paleness or otherwise at that time, for want of recollection.

×-Q. 132. You have stated in your direct testimony substantially that Mr. Douglass "after hearing the Graphophone Grand he seemed not only amazed but somewhat chagrined." Please state what peculiarity of his appearance caused you to think that he seemed amazed and somewhat chagrined?

A. Not only his manner, but his remark. His remark was most significant, as it was to the effect that he saw vanishing or failing the hope that was nearest to his heart—the polyphone, about which he had been constantly talking and on which he was earnestly working, and endeavoring to secure our co-operation and interest. I have already said his trip East was largely in interest of the polyphone.

(The answer is objected to as wholly irresponsible to the question.)

×-Q. 133. Now, please state what, if any peculiarity of Mr. Douglass's appearance or manner, if you wish to add that in your answer, that you observed and are now able to recall, led you to think that he seemed "not only amazed but somewhat chagrined"?

A. I am unable to give you a better illustration. To me the answer seems complete and direct.

×-Q. 134. Did you notice any appearance of agitation, nervousness, excitement, or paleness in the face on the part of Mr. Douglass at this time?

A. I am unable at this time to analyze and present in detail just what it was, beyond what I have stated, by which he gave me the impression I have already related.

×-Q. 135. You do not recollect whether he appeared nervous, excited, agitated or pale at the denouement of the dramatic feature which you had brought about. Is that correct?

A. I have no doubt he showed all of those characteristics.

×-Q. 136. After the exhibition of the Graphophone Grand on October 18, 1898, and after Mr. Douglass had made such exhibition as he did make, of his polyphone attachment on one of your ordinary Graphophones, aren't you able on further reflection to recollect the circumstance that Mr. Macdonald did bring out and show on that same day, October 18, 1898, the clover-leaf arrangement of polyphone which you had previously made—I mean show to Mr. Douglass and perhaps others?

(Objected to as immaterial and needless repetition.)

A. I have nothing further to add to my testimony on that point.

×-Q. 137. That is to say, you neither deny that it was done nor state that it was.

A. I say I do not remember.

×-Q. 138. To still further refresh your recollection on this point I will state to you that Mr. Macdonald has testified substantially that he recollects that after Mr. Douglass had shown his polyphone attachment in operation at this time, October 18, 1898, that he asked you if he should bring out and show the polyphone that he had made, and will ask you if you are still unable to recollect either this question of Mr. Macdonald's and whether or not Mr. Macdonald did bring forth the polyphone he had made, and also whether you recollect making any reply to this question of Mr. Macdonald's about showing the polyphone he had made?

A. My recollection is not complete in the matter of the time when that exhibition took place; that is to say, whether it was on October 18, 1898, or at some other time. On this point I am not able to answer, and have several times so stated.

×-Q. 139. During this exhibition of Macdonald Exhibit First Graphophone Grand, on October 18, 1898, in the presence of Douglass, Babson and Devine and yourself, did Mr. Fisher sing to the machine and make one or more records upon it?

A. Mr. Fisher did sing on that day in my presence; but I do not recollect whether he sang in the presence of all those named. It is quite likely he did.

×-Q. 140. Are you able to recall the circumstance that in beginning to sing to make a record, Mr. Fisher started once or twice too high and broke down and had to start over again?

A. I think so; but I am not sure. That is common in demonstrations.

×-Q. 141. Do you remember the circumstance that prior to Mr. Fisher singing and making a record on the machine, during this exhibition, that Mr. Macdonald prepared the record cylinder on the machine?

A. I recollect this very distinctly; also that Mr. Fisher was called in afterwards to sing. My recollection is indistinct only as to whether this was done for me alone, or whether it took place after the others came in. The leading thought at first was the complete demonstration for me. And this was a feature of it.

×-Q. 142. Since you and your company, the American Graphophone Company, obtained definite knowledge that Mr. Douglass had filed his application for patent involved in this interference, your company has instituted a number

of suits against him in the United States Circuit Court at Chicago, has it not?

A. Surely.

×-Q. 143. Please state briefly what those suits are and how many?

(Objected to as incompetent and calling for secondary evidence. Also as immaterial.)

A. I refer you to the records of the court for a full and accurate answer.

×-Q. 144. Please answer to the best of your recollection, I wish to test your recollection?

(Same objection.)

A. I now recollect a suit for the purpose of having turned over to the American Graphophone Co. the application which I understand Mr. Douglass has made for a patent forming the subject-matter of this interference; also a suit having the polyphone for its subject. I also remember a suit based upon the discovery by our secret service that Mr. Douglass was engaged in infringing our patents by making duplicate sound records. I do not at this time recall any other.

×-Q. 145. How many others are there?

(Same objection.)

A. I have stated that I do not recall any other.

×-Q. 146. Upon what patent is your suit based, which you have stated was based upon the discovery by your secret service that Mr. Douglass was duplicating sound records?

(Same objection.)

A. I do not remember. If you really want the information I will refer you to the court records.

×-Q. 147. I wish also to test your recollection. Please state?

A. I have stated.

×-Q. 148. What, if any, proceedings have been had in a suit of your company against Mr. Douglass, based upon the discovery that he was making duplicate sound records?

(Same objection, and counsel for Douglass is earnestly requested in consideration of the brevity of human existence to ask such questions, if he has any to ask, as may have a bearing upon the issue of priority of invention in this case, and counsel for Macdonald points out that if counsel for Douglass be sincere, as he assumes he is, in stating that his purpose in this line of examination is to test the memory of the witness that he will now be able on the last answer of the witness to argue that he has a very bad memory, and that his object should be regarded as having been fully accomplished.)

(In reply counsel for Douglass states that he has already stated that his object in the above question is in part only to test the recollection and memory of the witness, and that the facts inquired about are believed to be material and should appear in this record.)

A. All of the proceedings have been conducted by our patent counsel. I have no personal knowledge of the proceedings, generally speaking. I am not the patent counsel of the company, nor am I versed in patent law. I am the general counsel of the company.

(The last sentence of the answer is objected to as irresponsible.)

×-Q. 149. Do you mean to state that you have no knowledge, either of the decisions and opinions of the United States Circuit Court in this case, denying your motion for preliminary injunction, nor the decision of the United States Circuit Court of Appeals at Chicago, affirming that decision; and don't you know, Mr. Easton, that you have read copies of both those opinions?

(Same objection.)

A. I have been informed that the courts have decided not to grant a preliminary injunction, but to hear the case on its merits; and I have seen what purported to be copies of the opinions.

×-Q. 150. Are you the same Mr. E. D. Easton that is referred to in the opinion of the United States Circuit Court, and in the opinion of the United States Circuit Court of Appeals, in that case?

(Same objection.)

A. Yes.

×-Q. 151. Your company has also brought a suit against Mr. Douglass under what is known as the Bettini patent, has it not?

(Same objection.)

A. I think that is included in my previous statement.

×-Q. 152. But this is a different suit from the one in which the United States Circuit Court and the United States Circuit Court of Appeals rendered the decisions above mentioned, is it not?

(Same objection.)

A. It may be so. I do not remember.

×-Q. 153. And your company has also brought about the same time as these other suits, still another suit against Mr. Douglass, or his company, in which the infringement charged is the making, not of duplicate sound records, but Graphophone machines, has it not?

(Same objection.)

A. I think so.

×-Q. 154. You have stated to others, have you not, Mr. Easton, within the past two months, that Mr. Douglass and his company were now under very heavy litigation expenses, and that he could not stand up under it long, and would soon be compelled to give up, and that his litigation expenses could not be less than a hundred or a hundred and fifty dollars per day, or some such sum, have you not?

(Objected to as immaterial.)

A. I have no knowledge of the extent to which Mr. Douglass has made provision for legal expenses, and have not to my knowledge or recollection expressed an opinion to anybody on that subject. I have probably expressed the opinion, from my general knowledge of the subject, that his legal expenses would be large; for such seems to me to be the fact, especially in view of my personal experience with his counsel in the matter of cross-examinations, much of which seems to me to have not the remotest bearing upon the case.

×-Q. 155. Do you deny under oath that you made a statement substantially to the effect that Mr. Douglass's litigation expenses in the various suits your company had brought against him, were or must necessarily be, very large, and that he would soon have to succumb or give up, on that account, or words substantially to that effect, and that

you made that statement in Chicago during your last or next to last visit there?

(Same objection.)

A. In an experience of more than twenty years in observing the taking of testimony, I have never seen so much time consumed on what appeared to be irrelevant material. I do feel that great and unnecessary expense is being incurred in this case, and have probably often so stated. I do not know, nor do I believe I have expressed an opinion, as to the extent of the resources which Mr. Douglass may have at command to provide for such expense.

(The answer is objected to as entirely irresponsible.)

×-Q. 156. The question is repeated and the witness is asked to state categorically whether he did or did not make substantially such a statement as recited in the previous question at Chicago and during his last few visits there?

A. I have nothing to add and believe I have fully answered the question.

×-Q. 157. Then you do not deny making such a statement?

A. I have no recollection of making it in the manner and form of the question.

×-Q. 158. I have not endeavored to give the exact words or the exact form of your statement, but simply its substance, and I wish you now to answer it.

(Same objection.)

A. I have nothing to add.

×-Q. 159. Then you do not deny having made a state-

ment to substantially the same effect or substance as that recited in my previous question, ×-Q. 155?

(Same objection, and further objected to as indefinite in that it does not appear what counsel means by the substance of the statement. Attention is called to the fact that the witness has stated his recollection as to what he did say or might have said in this connection from which counsel can draw his own inference. This line of examination is further objected to as unworthy of the case and of counsel.)

A. I have nothing further to add.

×-Q. 160. I wish to add whether you do or do not deny making the statement inquired about?

A. Having answered fully, I decline to repeat and refer you to my testimony.

(Counsel for Douglass here states that he assumes the witness's repeated refusal to directly answer the last few questions to be equivalent to the witness's admission that he made the statement inquired about in ×-Q. 155.)

×-Q. 161. Upon what ground or claim of right is the suit based, which your company has brought to compel Mr. Douglass to turn over to your company Mr. Douglass's application for patent involved in this interference, and Mr. Douglass's patent on the polyphone.

(Objected to as calling for incompetent and inadmissible evidence, and attention is called to the fact that this is the third time in this record that counsel for Douglass has asked questions about the contents of documents which it was in his power to have produced, had he so desired, but as to which he preferred to put

on the record the incompetent and inadmissible, not to say inaccurate statement of his client, as to the nature, effect and contents of a legal document which is a matter of public record.)

(In reply counsel for Douglass states that the cross-examination is strictly germane to the direct testimony of this witness.)

A. I refer you to our bills of complaint which state our case and decline to make any other answer. You have access to the bills and they tell the story.

×-Q. 162. You have yourself given testimony in that suit, have you not?

A. I have testified in one of the cases.

×-Q. 163. And you know upon what ground your company bases its alleged right to compel Mr. Douglass to assign or turn over his application for patent which is involved in this interference?

A. I positively refuse to enlarge my previous answer, and counsel will waste time in pursuing this subject further.

×-Q. 164. The fact is, is it not, that your company bases its alleged right to compel Mr. Douglas in this suit to assign or turn over to your company his application for patent involved in this interference, on the ground that Mr. Douglass made the invention forming the subject-matter of this interference, and forming the subject of his said application, during a certain period of time, beginning on or about March 1st, 1898, and ending on or about October 1, 1898; that he was in the employ of the American Graphophone Company as experimentalist and under agreement to assign all inventions made by him during this period to your company; is that not correct?

(Same objection; counsel for Douglass must know that the only admissible evidence of the matter in-

quired of is the bill of complaint in the suit referred to, which he has had full opportunity to introduce, but which for reasons of his own he did not do.)

A. The same answer.

×-Q. 165. Do you decline to answer my last question?

A. I do.

(Counsel states that the facts inquired about being within the knowledge of the witness who is the president of the American Graphophone Co., a party to this case as the assignee of Macdonald, the witness's refusal to answer is assumed to be equivalent to the admission of the American Graphophone Co. that the statement recited in ×-Q. 164 is correct.)

(Counsel for Macdonald objects to the foregoing and any further statements in this record by counsel for Douglass of his assumptions, on the ground of the manifest impropriety, the proper place therefor being in his brief, which will be printed at his own expense.)

(Counsel for Douglass says in reply that his above statement was made in all fairness and for the purpose of giving counsel for Macdonald and the American Graphophone Co., his assignee, an opportunity to instruct his witness to answer the question if he did not want to be bound by the consequences of the witness's refusal to answer.)

×-Q. 166. In your testimony given in the suit brought by your company, The American Graphophone Co., complainant, against Leon F. Douglass, defendant, for the purpose of compelling Mr. Douglass to turn over to your company his application for patent involved in this interference, you were asked in ×-Q. 142 in relation to the conversation that

took place on October 18, 1898, on the train from New York to Bridgeport, whether you and Mr. Douglass did or did not have "a conversation substantially to this effect, that Mr. Douglass asked you 'why don't you make a larger diameter cylinder on the talking machine, it would make a better record.' And you then asked him, Would it be any better? And Mr. Douglass told you that it would be much better, that he had tried it. That you then asked him how large he would make it; and he then told you that he would make it about six inches in diameter. That you then asked him how loud it would be, and he told you it would be almost as loud as a man's natural voice. That you asked him if it would be any use to make it any larger; and he told you that he thought it could be made still larger, but that he thought six inches would be as large as practical," and your answer thereto was as follows: "A. Such conversation did not take place on the way to Bridgeport. It may have taken place on the return journey, after Mr. Douglass had seen the Graphophone Grand. I do not recall the conversation as ever having taken place; but I am sure it did not take place at the time stated in the question," and in your said deposition the next question, X-Q. 143, and answer thereto, are as follows:

"X-Q. 143. Then, as I understand you, you do not deny that substantially such a conversation may have taken place on the train; but you do deny that it took place on the way to Bridgeport. Is that right?

"A. I deny that the conversation took place before the exhibition to Mr. Douglass of the Graphophone Grand in Bridgeport."

Please look at the copy of the testimony in that case, which I now hand you, and state if that is correct?

A. You have correctly read according to the copy in my hand.

X-Q. 167. And the copy I handed you is a correct copy of the testimony in that case?

A. I believe it to be.

Recess until 2 P. M.

X-Q. 168. And the following is also a correct copy of other portions of your said deposition in the same case:

"X-Q. 12. What is the object, Mr. Easton, of this suit?

"A. To require the assignment to the American Graphophone Co. of the inventions made for the Company, by the defendant, and particularly, application for patent filed February 4, 1899, as will better appear by the bill of complaint.

"X-Q. 13. During what period of time do you claim and contend that inventions made by Mr. Douglass belong to and should be assigned by him to your company?

"A. During the period of his employment.

"X-Q. 14. By the American Graphophone Co. the complainant?

"A. Yes.

* * * *

"X-Q. 18. You have stated that Mr. Douglass was in the habit of communicating to you ideas he had with reference to the improvement of the talking machine. Did you mean to state that he was in the habit of communicating to you all the ideas he had in relation to the improvement of the talking machine?

"A. I did not mean to take the responsibility of making such a statement.

"X-Q. 19. During what period of time was he in the habit of communicating his ideas to you in reference to the improvement of the talking machine?

"A. He made suggestions on this subject from time to time during our acquaintance, the last, I think, during his employment as an experimentalist, which terminated in September, 1898; but I would not be positive he made none after that date.

"X-Q. 20. During the whole period of your acquaintance?

"A. Yes.

"X-Q. 22. Did Mr. Douglass also sometimes communicate his ideas relative to the improvements in talking machines orally at personal interviews, or did he always communicate them by written correspondence or letter?

"A. Often orally.

"X-Q. 29. When did Mr. Douglass first communicate to you the idea of using a larger sound record blank for any purpose?

"A. I can say generally that it was during the period of his employment as an experimentalist, and in a letter containing an official report of his work. I do not recall the date of the letter; but do recall that the suggestion was one of several, all quite unimportant and none being emphasized by the writer.

"X-Q. 30. You have no recollection of his ever communicating to you the idea of using a larger sound record, have you, on talking machines, orally?

"A. I have not.

"X-Q. 31. You have no recollection of the subject ever being discussed between you and Mr. Douglass orally?

"A. I have not. Although I do not mean to say it was not.

"X-Q. 32. Did Mr. Douglass ever suggest to you any dimensions, or to what extent he would increase the diameter of the blank?

"A. I do not remember whether he did or not. We had never on this subject any conversation which seemed to me important previous to the invention of the Graphophone Grand; and therefore what he said as to details, if he said anything, would not remain in my memory. We talked often and informally about almost everything of interest in the business.

"X-Q. 33. In your last answer, by 'previous to the

invention of the Graphophone Grand' do you mean previous to Mr. Douglass's invention of the Graphophone Grand?

"A. I do not.

"X-Q. 34. What do you mean?

"A. I mean previous to the time when a laboratory model of the Graphophone Grand was shown to Mr. Douglass in our factory in Bridgeport, Connecticut, that model being the work of Mr. Macdonald. After that date the subject became important, because of the value apparent in the invention. Before the appearance of this machine such was not the case.

"X-Q. 35. By your last answer you have stated under oath that the date of the invention of the Graphophone Grand, by whomsoever it may have been invented, was at the particular date when Mr. Douglass saw a certain model; is that your understanding of the real fact?

"A. It is not my intention to so testify, nor do I think the answer capable of such interpretation.

"X-Q. 36. You are a lawyer, are you not, Mr. Easton?

"A. I am.

"X-Q. 37. You have been for years connected with the Graphophone Co., the complainant?

"A. I have.

"X-Q. 38. You have had a great deal of experience in patent litigation generally, including interference contests in the Patent Office?

"A. We have had patent litigation continuously.

"X-Q. 39. Do you wish the court to understand that you are and were so ignorant of what invention is as to suppose that the date of invention is the date when a model embodying the invention was shown to a third person?

"A. That may be the date when Mr. Douglass made the invention; I do not wish the court to think otherwise than in accordance with the facts, and I have not attempted to state when the invention of the

Graphophone Grand in question was made by Mr. Macdonald.

"X-Q. 40. You have already stated in answer to X-Q. 33 that by the phrase 'previous to the invention of the Graphophone Grand' you did not mean Mr. Douglass's invention of the Graphophone Grand; am I now to understand that by your statement 'previous to the invention of the Graphophone Grand' in your answer to X-Q. 32, you had in mind and meant Mr. Macdonald's alleged invention of the Graphophone Grand?"

"A. Yes. In order to make my point perfectly plain I should say that this subject never had prominence until after that time, and therefore any talks that Mr. Douglass and I might have had as to a large cylinder received no special attention, and made no substantial impression upon my memory for the reason, as I before stated, that it had been common talk that a larger cylinder was a means of obtaining a longer continuous record.

"X-Q. 41. By substantial impression on your memory you mean lasting impression on your memory, do you not?"

"A. Yes.

"X-Q. 42. Now, Mr. Easton, in your answer to X-Q. 32 you stated, 'We had never on this subject any conversation which seemed to me important previous to the invention of the Graphophone Grand,' and you have stated in answer to X-Q. 40 that in the above you had in mind and meant Mr. Macdonald's invention or alleged invention of the Graphophone Grand. Will you now please state the date of Mr. Macdonald's invention of the Graphophone Grand, so that we may know what time you refer to in your answer to X-Q. 32?"

"A. I now see that I did not give the answer in question with the precision intended. I did not mean Mr. Macdonald's invention of the Graphophone Grand. I meant the exhibition of the invention to Mr. Douglass and others. That date I can, if desired, fix approximately.

"X-Q. 43. Please do so.

"A. By taking some time I can give the exact date. Speaking from memory I should say it was in the fall of 1898.

"X-Q. 44. Please fix the date accurately?"

"A. October 18, 1898.

"X-Q. 45. In making the above answer, I notice that you referred to or read from a memorandum book. What is the full entry in the memorandum book in relation to this? Just read it.

* * * * *

"A. 'Macdonald made a record on the Graphophone with big cylinder for the first time in my view; and it was tremendous. Covered it with a piece of paper and surprised Douglass and Babson, and they thought it was tremendous. Fisher sang to it.'

* * * * *

"X-Q. 73. I wish you to answer the question without modifying it, and I will therefore repeat it to you. Did he (Douglass) ever state to you orally or in writing that the most important thing was the making the record larger and that the larger the record the better, and don't you remember that about September, 1897, when you were in Chicago, he made statements to substantially this effect to you.

"A. I have no such recollection.

"X-Q. 74. Neither orally nor in writing, nor in the fall or summer of 1897, nor at any time prior to October 18, 1898?"

"A. That is so."

Please examine the copy of your deposition in that case which I now hand you and state if that is not correct?

(Counsel for Macdonald agrees that the foregoing quotations are correct quotations of portions of the deposition referred to, but objects to the question as immaterial and as needlessly encumbering this record. He also states that, without knowing the purpose coun-

sel for Douglass may have in view, there are many omissions which might affect the proper understanding of the testimony of the witness as a whole, and points out that the proper course to pursue, if it be desired to use this deposition, or any part of it, is to have the same marked for identification and introduced in evidence.)

(Counsel for Macdonald further states that the said deposition is still incomplete, and is waiting opportunity of counsel to complete it.)

A. I believe it to be correct.

×-Q. 169. And, at the time you gave your testimony above quoted in that suit, you believed it to be true?

A. Certainly.

×-Q. 170. Mr. Douglass was asked, when he was on the stand, by your counsel, if he had ever filed any applications for patents for you or your company, or assigned them to you or your company, having for their subject any invention made by Mr. Douglass, during the period of time from March 1st, 1898, to October 1st, 1898, that he was in the employ of your company as experimentalist; and Mr. Douglass stated that he had not. Aside from Mr. Douglass's invention of the polyphone, and the Graphophone Grand, or invention involved in this interference, and both of which Mr. Douglass claims to have made prior to March 1st, 1898, have you or your company ever requested him to file any application for patent on any invention made by him during that period, or assign the same to your company?

A. No; nor do I recall any of his works which would justify such an expense.

×-Q. 171. You have stated in answer to direct question 41 that you did not understand by Mr. Douglass's state-

ment in his letter to you of November 16, 1898, referring to the Graphophone Grand, that he was interested in the machine because it was one of his suggestions, that Mr. Douglass claimed to be the inventor. What did you understand by this statement in Mr. Douglass' letter?

A. I thought it was one more of the very many examples I had seen of careless and inaccurate statements on the part of Mr. Douglass. He was not well educated, did not well understand the meaning of words, was of a highly sanguine temperament, and had made hundreds of times statements which, during the earlier years of our acquaintance, I thought to be in good faith, and yet would not bear careful scrutiny. I understood this to be in that class, and did not for a moment consider that it was a claim seriously made to the inventorship of the Graphophone Grand.

×-Q. 172. You have stated in answer to direct question 40, that you did not understand from Mr. Lyle's letter of December 31, 1898, in which Mr. Douglass is reported to have said, that he, himself, had made application for a large type machine over a year ago—that this was an intimation that Mr. Douglass claimed to have invented the Graphophone Grand. Now please state what you did understand by this?

A. I think my answer to ×-Q. 171 will also fully cover ×-Q. 172. I do not think I can state it better again. Mr. Douglass made many statements along similar lines which as I have said, I learned it would not do to inquire too closely into; and this I took to be one of them. He was very careless in such matters. I never believed he had made a serious claim to the inventorship of the Graphophone Grand until my reference of the subject to our counsel, Mr. Mauro.

(All of the above answer except the first sentence thereof, is objected to as irresponsible.)

×-Q. 173. And this reference of the matter to your counsel took place after your receipt of Mr. Lyle's letter to you, dated January 11, 1899, and in which Mr. Lyle states that Mr. Douglass took occasion to refer, to several letters which he had written you back in March or April in which there were marked paragraphs in regard to the use of larger cylinders on machines. Is that correct?

A. It is. At this point I wish to refer to my answer to ×-Q. 172 and to the words therein, "many statements along similar lines." I do not mean by this phrase that Mr. Douglass made many statements, or any statements, other than those I have expressly testified to about the Graphophone Grand. He never made any statement to me claiming that invention, except as I have testified. I mean, he made many careless and loose statements about his work and about applications for patents, or the granting of patents, and that I often found there had been no such applications and were no such patents.

(All of the above answer except the first sentence, thereof, is objected to as wholly irresponsible to the question.)

×-Q. 174. Are you able to recall whether or not Mr. Fisher was present in the room at Bridgeport, Conn., where the Graphophone Grand was shown on October 18, was present in the room at the particular time the paper was removed from the machine and immediately following that event?

A. I think so.

×-Q. 175. But you are not positive about it?

A. I am not absolutely positive; but I believe he was present, as the paper was removed early in the exhibition. My impression is Mr. Fisher made a record in the presence of the company; and this would have necessitated the removal of the paper.

×-Q. 176. It is a fact, is it not, that your companies for several months past have refused to sell to Mr. Douglass or his company blanks, records, graphophones, and other talking machine supplies?

(Objected to as immaterial.)

A. It is a fact.

×-Q. 177. It is also a fact, that during the past several months, you have attempted to induce the Edison or National Phonograph Co. also to refuse to sell or supply talking machine blanks to Mr. Douglass or his company?

(Same objection.)

A. Certainly; they are our licensees and their interest in preventing infringement of our patent should be as great as ours.

×-Q. 178. Please look at your letter dated June 20, 1898, to Mr. Douglass beginning with the words, "Mr. Macdonald saw the motor in Arcola on Saturday," and ending with the sentence, "I congratulate you heartily upon the suggestive character of your work which is sure to aid us substantially," and state if it is signed by you?

A. It is and would be a good illustration of one of the instances in which I encouraged his work and communications. I should say that the motor in question never materialized.

×-Q. 179. The motor was one that Mr. Douglass had gotten up?

A. He sent it on; I do not remember that he got it up. It seems to me that it was brought to him by somebody else.

×-Q. 180. Please look again at your letters to Mr. Douglass, dated October 21, 22, 26, and November 3 and 4, all in 1898, and to which I called your attention yesterday, and state if they are not all signed by you, and if they do not

each contain some reference to polyphone models, designs or constructions that Mr. Macdonald was then making?

A. Yes.

×-Q. 181. In the suit which your company, the American Graphophone Company, brought against Mr. Douglass, to compel him to assign his application for patent involved in this suit, you obtained a preliminary restraining order enjoining Mr. Douglass from transferring or assigning the same, pending the final determination of the suit, and that restraining order is still in force, is it not?

(Objected to as immaterial, irrelevant and incompetent.)

A. I believe so.

×-Q. 182. Your deposition given in that suit, from portions of which copy has been made into this record, was given in November, 1899, beginning November 23, was it not?

A. I believe so.

×-Q. 183. What, if anything, are you able to recollect, in relation to any conversation which you had with Mr. Douglass in September, 1897, on your visit to Chicago at that time?

A. I neither remember the visit nor any conversation. I made many visits to Chicago, and during a period of several years always saw Mr. Douglass.

×-Q. 184. In giving your answer to direct question 11, wherein you stated the exact date when you first saw a sound record made and reproduced on the machine known as the Graphophone Grand, I noticed that you referred to a diary, or memorandum book. Will you now produce and read into the record in this case, all the matter that you have entered there in relation to Mr. Douglass or Mr. Babson, or other persons present in the room at the time the

Exhibit First Graphophone Grand was shown, and in relation to that exhibition?

A. (Reading) "Macdonald made a record on the graphophone with big cylinder for the first time in my view and it was tremendous. Covered it with a piece of paper and surprised Douglass and Babson. They thought it was tremendous. Fisher sang to it."

That is all.

×-Q. 135. Do you state under oath that you have read all the matter on the page of your memorandum book from which you did read, having relation to Mr. Douglass or Mr. Babson, or other parties present in that room?

A. I understood your question to be confined to the exhibition of the Graphophone Grand. I find on the same page other entries naming the parties you have specified, but not in relation to the said exhibition. I will read the remainder:

"Douglass appeared with his polyphone and later Babson joined him. Douglass exhibited the polyphone in the office and had some trouble to get it adjusted but finally got very good results. He and Babson have been to the Edison works and been taken through. It was claimed Edison would be there to see them, but he was not; and I think Douglass was somewhat disgusted with the visit because he seemed to be rather sore on Edison and anxious that Babson should see our factory. I asked Douglass what about polyphone patents, and he said he thought he wouldn't do anything about it—as I understood, would not bother. Decided to go to Bridgeport with them and look further into their doings, &c. Invited Devine and he accepted. Douglass and Babson met Devine and me at Mervin's downtown office, which Babson saw for the first time, and we went to the one o'clock train. Bought sandwiches for lunch. Douglass wants us to make the polyphone for him. He said he would sell it to us for four dollars

and a half, net, for the present and pay us one dollar for each outfit sold to a contract dealer. I told him he might pay George Lyle the royalty. Missed Macdonald at the depot, but he came to the factory later. Meantime Phillips took Douglass and Babson and Devine through."

Then comes the entry I read in answer to X-Q. 184; after which the record continues:

"Then Douglass showed his polyphone and it worked very well. Macdonald made a number of suggestions about it. Macdonald showed his three-diaphragm machine and it did not work well. Left on the 5.35."

That completes the entries of the day so far as Messrs. Douglass and Babson are concerned.

X-Q. 186. Will you let me examine the page of your memorandum book from which you have read?

(Counsel for Macdonald instructs the witness that the book being a private record of his own affairs and having been referred to merely to fix a date, he is not called upon to show the same to opposing counsel unless he wishes to do so.)

A. In a previous hearing in another case I submitted the page in question, which is written in shorthand, to counsel for Douglass, not knowing or suspecting he had any knowledge of that art. The diary is a private record containing items of purely personal family history, as well as business notes, and I would not under any circumstances permit its inspection by counsel for Douglass. I therefore refuse most positively and finally to allow him to see it.

(Counsel for Douglass states that he has only a very limited knowledge of the shorthand art and that when the memorandum book was shown him at the time re-

ferred to by the witness, when the witness's deposition was being taken in the title suit from which quotations have been made into this record, he only examined it for a few moments, and barely sufficient to notice that the names Douglass and Babson appeared in several different places on the page shown, and that the examination then given the book was not sufficient to determine whether the witness has now read into this record correctly the matter which he has pretended to read, and again asks for the production of the book, to verify the matter on the particular page read.)

X-Q. 187. Do you still decline to produce it for this purpose?

A. Certainly; and counsel will save time if he will refrain from putting questions which I have expressly assured him will not be answered.

X-Q. 188. When you first read in your deposition in the title case the entry relating to the exhibition of the Graphophone Grand machine on October 18, 1898, you misread that particular entry and afterwards corrected it, after I had somewhat slowly deciphered the entry in your shorthand characters, and called your attention to the error or mistake. Is that not correct?

A. I remember the omission of a word which was twice repeated. I first read the entry substantially, but not literally. I believe the word "tremendous" occurred twice, and on the first reading I only read it once.

(The answer is objected to as irresponsible and the question is repeated.)

(Objected to as incompetent; the record can be produced and will show what happened.)

A. Answer repeated.

×-Q. 189. The fact is, that in giving that former deposition, you omitted in first reading the answer the words "and it was tremendous," and that, after I called your attention to the error or mistake, you again correctly read the answer, including the previously omitted words, "and it was tremendous;" that is correct, is it not?

A. I think so; but thereby I substantially weakened my own case; and you surely would not find fault with me for that. The mistake was against my own interest.

(The entry in the witness's memorandum book, which he read into the record in answer to ×-Q. 185, is objected to as incorrect and incomplete.)

×-Q. 190. Will you please read into the record such entries in your memorandum book as you may have therein under the dates upon which you received Mr. Douglass's letters to you, dated March 23, April 2 and April 5, 1898, and which have been offered in evidence as exhibits in this case by Mr. Douglass?

A. I can assure you, without making search, that those letters contained nothing which would be the basis of a diary entry. They were not important communications; and they were not written with the intention of disclosing the invention of the Graphophone Grand, nor do they disclose it. They have no *bona fide* purpose in this case.

(The answer of the witness is objected to as wholly irresponsible to the question and the question is repeated.)

A. The answer is repeated.

×-Q. 191. Do you decline to read the entries called for?

A. I say there are no such entries; that the letters were not of sufficient importance to call for entries; and I again add that they have no substantial bearing upon this case.

That they contain nothing new or important so far as the reproduction of sound was concerned.

(The answer is objected to as irresponsible and question repeated.)

A. I understood your question to be entries about the subject-matter contained in those letters. I now understand you to ask for any or all entries under those dates; and decline to give the information asked.

×-Q. 192. Will you please read into the record all entries in your memorandum book under the dates upon which you received Mr. Douglass's letters of March 23, April 2, and April 5, 1898, which have been offered in evidence as exhibits in this case, and relating to any matter mentioned in said letters?

A. I have no entries on the dates in question relating in any way to the subject-matter of this interference; inasmuch as I never heard or suspected or imagined of the claim of Mr. Douglass to the invention herein under consideration until the date to which I have testified to in this interference.

×-Q. 193. Will you look at your memorandum book and see whether or not it contains any such entries as inquired about in the previous question?

A. I will take the responsibility without so looking, of saying it does not.

×-Q. 194. Will you produce it and let me examine it to ascertain the truth in this regard?

A. You know I will not, for I have expressly so stated.

×-Q. 195. Will you please examine your memorandum book and read into the record what, if any, entries you may have therein in relation to any conversation you may have had with Leon F. Douglass in September, 1897, during your visit or visits to Chicago in that month and year?

(Counsel for Macdonald, in order to bring this performance to an end, notifies counsel for Douglass that the witness will not read anything whatever into the record from the book referred to, or answer any further questions of similar import to the last with reference to it; and counsel for Douglass is advised that if he considers this refusal to be a disregard of his right of full examination, of which he has exercised himself to a most unlimited extent, there is a legal remedy which he is invited to seek.)

A. I decline.

Re-direct examination by Mr. MAURO :

Re-D. Q. 196. Inasmuch as the deposition given by you in a pending suit, and from which quotations have been made by Mr. Adcock is incomplete, I will ask you to state as clearly as you can the meaning of the answers quoted in X-Q. 166 ?

A. I mean to say that never at any time, or under any circumstances before the exhibition of the Graphophone Grand did Mr. Douglass disclose such an invention, or anything like it to me; nor, for that matter, did he ever do so after October 18, 1898. I meant to say that after he saw and heard the Graphophone Grand he might have said he knew the machine would do it, because he had seen it do it in our factory in Bridgeport, or he might have said any other truthful thing that related to what he had seen. I wish to deny most expressly and emphatically that he ever disclosed the invention to me as his invention; or ever presented the matter to me at all before October 18, 1898; and to say, in view of the fact that he had been for many years deeply interested in and anxious to make improvements in the art, if he had known how to make this, the greatest improvement from the time the art began, he would

have laid it before me personally and with the greatest earnestness wherever I might have been, even if he had had to travel a great distance; that he would have made it the only object and aim of his life until it had been fully presented and demonstrated. His whole history indicates this. He presented ideas of relatively small importance in this earnest and enthusiastic way; and had he made so great an invention he would never have let me rest until it had been fully before me.

(Signed) E. D. EASTON.

Adjourned to meet at Washington, D. C., at the office of Macdonald's counsel 620 F St., 9.30 A. M., Monday, January 29th, 1900.

IN THE UNITED STATES PATENT OFFICE

In re Interference.

LEON F. DOUGLASS }
 against } Before the Commissioner of
 THOMAS H. MACDONALD. } Patents.
 Interference, No. 20,090.

STATE OF NEW YORK, }
 City and County of New York, } ss.:

I, C. E. Davidson, Notary Public within and for the City and County of New York, State of New York, do hereby certify that the foregoing depositions of George W. Lyle, Andrew Devine, Victor H. Emerson, and Edward D. Easton were taken on behalf of Thos. H. Macdonald before me, at the offices of Philip Mauro, Esquire, No. 141 Broadway, New York City, on the 23d, 24th, 25th and 26th days of January, 1900; that the said witnesses were by me duly sworn before the commencement of their testimony; that all of said testimony was written out by me; that the opposing party, Leon F. Douglass, was represented during the taking of said testimony by Edmund Adcock, Esquire, his counsel; that said testimony was taken at the City of New York, as aforesaid, and was commenced on the 23d day of January, 1900, was continued pursuant to adjournment on the other days above indicated, and was concluded on the 26th day of January, 1900. That each of said witnesses read his deposition before signing it. That I am not connected by blood or marriage with either of the parties to this interference, nor interested directly or indirectly in the matter in controversy.

[SEAL.]

In testimony whereof I have hereunto set my hand and affixed my seal of office at the City of New York, in the County and State of New York, this 2d day of March, A. D. 1900.

(Signed) C. E. DAVIDSON,
 Notary Public, New York County.

WASHINGTON, D. C., Monday, January 29th, 1900.

Met pursuant to adjournment at the offices of Philip Mauro, Esq., No. 620 F street, Washington, D. C., before Reeve Lewis, a notary public in and for the District of Columbia.

Present: Mr. ADOCK, Mr. DOUGLASS, and Mr. MAURO.

SHELTON T. CAMERON.

And thereupon SHELTON T. CAMERON, a witness produced on behalf of Macdonald, being first duly sworn and cautioned to tell the truth, the whole truth, and nothing but the truth, deposes and says:

Question 1. Please, state your name, age, residence and occupation?

Answer. Shelton T. Cameron; 42 years; Washington, D. C.; lawyer, solicitor of patents and mechanical expert.

Q. 2. State briefly what attention you have given as an expert to the art of recording and reproducing sound, and to the mechanism and processes employed therein?

A. Since severing my connection with the United States Patent Office between three and four years ago, I have drawn numerous applications for patents in the art of recording and reproducing sounds, have repeatedly testified as an expert witness in the courts in causes relating to or involving patents connected with the art of recording and reproducing sound, and especially in causes relating to patents connected with that branch of the art which consists in forming a sound record in wax or wax-like material through the medium of a cutting or engraving style. Machines of this character are now generally known as "Graphophones" or "phonographs." I have made exten-

sive and careful studies of graphophone records with the microscope and have studied the same both with the microscope on the actual record and microphotographs taken from such record.

Q. 3. Do you understand the invention set forth in the application of Thomas H. Macdonald involved in this interference, and have you or not made any particular examinations of sound records known as "Graphophone Grand Records" as distinguished from the ordinary small record of commerce?

A. I am thoroughly familiar with the invention described and claimed in the application of Macdonald referred to in your question, and have made a close and careful study of Graphophone records known as "Graphophone Grand Records."

Q. 4. Have you examined an exhibit known in this case as "Douglass Exhibit 1897 Sound Record," the same being a record of a song composed and sung by Mr. Ford, the song being entitled, "I love you in the same old way"?

(Objected to as incompetent and inadmissible.)

A. I have.

Q. 5. Have you as the result of such examination reached a conclusion as to the speed at which that record was made, and if so, state what your conclusion is, and state fully how you arrived at it?

(Same objection.)

A. After repeated and careful tests of the record referred to I will state as my opinion that the record referred to was made at a speed not to exceed 185 revolutions per minute. For the purpose of determining the rate of speed or the number of revolutions per minute at which the record was

made, I placed the same upon a Graphophone and operated the machine with a reproducer in operative relation with the record, regulating the speed of the machine by the adjusting screw provided for that purpose until the reproductions reached the point where they sounded the most natural. This was done by allowing the record to move at a higher or a slower speed until I was enabled to determine by ear the speed at which the record was made. The Graphophone employed was one having a screw for propelling the reproducer along the record, the threads of the screw being cut one hundred to the inch. The slide upon which the reproducer carriage moved was divided into inches and tenths of inches. The machine having been adjusted so that the record was reproduced in the most natural tone, the machine was then started and the movement of the carriage timed. Inasmuch as the threads of the propelling screw were cut one hundred to the inch it will be understood that the time consumed by the carriage in advancing over the measured inch would be the time consumed by the machine in imparting one hundred revolutions to the record and by allowing the machine to run for one minute, and noting the distance over which the reproducer carriage was moved, I would be enabled to state exactly the number of revolutions of the record per minute. Having placed the record upon the machine and, as before stated, having adjusted it so that the tones reproduced were the most natural, I started the machine and after it had got fully under way, I observed the distance which the reproducer carriage advanced in one minute and found it to be a very little over one inch and eight-tenths of an inch, which at one hundred revolutions per inch, demonstrates that the record made a little more than 180 revolutions per minute.

Q. 6. Have you in your possession the machine upon which these tests were made, and if so, please produce it?

A. I have and do.

(Same objection.)

(The machine produced by the witness is offered in evidence to be marked "Macdonald's Exhibit, Speed Testing Machine.")

(Same objection.)

Q. 7. What is the outside diameter of the Ford record "Douglass Exhibit 1897 Sound Record"?

(Same objection.)

A. Two and one-eighth ($2\frac{1}{8}$) inches.

Q. 8. Assuming that record to have been made at a speed of 185 revolutions of the mandrel shaft per minute, what would be the surface speed of the tablet in inches and in meters?

(Same objection.)

A. With an axial revolution of 185 per minute the surface speed of the tablet would be a fraction over 1,235 inches per minute, or a fraction over 31 meters per minute.

Q. 9. If the speed were 240 revolutions per minute what would be the surface speed in meters and inches?

A. 1,602 and a fraction inches, or 40 and a fraction meters.

Q. 10. Please state whether or not the Exhibit "Douglass

1897 Sound Record" shows the characteristic features of the "Graphophone Grand Record"?

(Same objection.)

A. It does not; the reproduced sounds are wholly lacking in those characteristics which distinguish the "Grand Records" from the records heretofore made on the Graphophone when the cylinders were driven at the customary low speed. The volume of the reproduction obtained from the "Douglass 1897 Record" does not approach that obtained from records made by the Macdonald method and known as "Grand Records," and the quality of the reproduced sounds on the "Douglass 1897 Record" is vastly inferior to the quality of the reproductions obtained from the "Grand"; and the increased volume and improved quality of the reproduced sounds are the distinguishing results obtained from the "Grand."

(Counsel for Macdonald offers in evidence a copy of the musical score of the song "I Love You in the Same Old Way" by Walter H. Ford, to be marked "Macdonald Exhibit Ford Song.")

(Objected to as incompetent and inadmissible.)

(Without waiving the objections heretofore made, counsel for Douglass cross-examines subject to the same.)

Cross-examination by Mr. ADCOCK:

X-Q. 11. Are you the same S. T. Cameron whose name appears on the letter head of Mr. Mauro's law office?

A. I am.

×-Q. 12. Are you a partner or employee of Mr. Mauro, counsel for Macdonald and the American Graphophone Company in this case?

A. I am not a partner of Mr. Mauro's. I am employed by Mr. Mauro to give the expert testimony in this case just as he has employed me as an expert in numerous other cases, but except as Mr. Mauro sees fit to employ me and pay me for my services when he desires them I am not an employee of Mr. Mauro's.

×-Q. 13. You have been employed and expect to be paid as an expert for your testimony in this interference case?

A. I have been employed as an expert by Mr. Mauro in this interference case and I never knew Mr. Mauro to fail to pay his bills. I therefore certainly expect to be paid for my services.

×-Q. 14. Did you see or examine the exhibit "Douglass 1897 Record" concerning which you have testified prior to its being offered in evidence, or during the taking of testimony on Mr. Douglass's behalf in Chicago, Illinois?

A. I did not.

×-Q. 15. Then if you have seen or examined it at all it was since it has been filed as an exhibit in the Patent Office at Washington; is that correct?

A. It is.

×-Q. 16. Did you receive any permission or authority from Mr. Douglass or his counsel to examine said "Douglass 1897 Record" while it was on file in the Patent Office?

A. I did not.

(The deposition of this witness is further objected to for the reason that it now appears that if he has seen or examined the said "Douglass 1897 Record" at all,

that it was done after said record was filed in the Patent Office as an exhibit in this interference case, and that the examination was made without the consent or knowledge of Douglass's counsel, and for the further reason that the file of Douglass's application for a patent of which the exhibit in question now forms a part is a confidential matter, and to which the public has no right of access, and to which no one has right of access excepting the parties to said interference and their attorneys of record.)

Re-direct examination by Mr. MAURO:

Re-D. Q. 17. Please state the circumstances under which you made the examination of the exhibit "Douglass 1897 Record" to which you have referred?

(Objected to as incompetent and inadmissible, and also improper re-direct.)

A. By direction of Mr. Mauro, counsel for Macdonald in this interference, I called upon the Commissioner of Patents and stated to him that Mr. Mauro wished me to make a test of the record in question, and that he had expressly directed me not to do so except in the presence of the Examiner of Interferences or some one delegated by him. The Commissioner stated that the request was a perfectly proper one, told me to go to the Examiner of Interferences and get some one to go with me when I made the tests. I called upon the Acting Examiner of Interferences, Mr. Chisolm, and asked him to either go with me himself or delegate some one for that purpose. Mr. Chisolm directed Assistant Examiner Orrick to go with me and Mr. Chisolm him-

self accompanied Mr. Orrick and me. Mr. Orrick opened the box containing the exhibit, which was sealed or bound up with a light twine, took out the record, and handed it to me for the purpose of making the tests. When the tests were finished I rolled the exhibit up, placed in the box, and handed it to Mr. Orrick to return it to the box containing the interference files.

Re-D. Q. 18. Have you handled the record at all except in the presence of an official of the Patent Office?

(Same objection.)

A. I have not handled the record except in the presence of some member of the Examining corps in the Interference Division.

Re-D. Q. 19. Where were these tests made?

(Same objection.)

A. In the room known as "Mr. Emery's room" in the Patent Office.

Re-D. Q. 20. Mr. Emery is the Custodian of the Interference Records I believe?

(Same objection.)

A. He is.

(The deposition of the witness is further objected to because it now finally appears that it relates to alleged tests or experiments made by the witness under direction of counsel for Macdonald in the presence of the Assistants of the Examiner of Interferences before whom this case is to be tried, and without the presence or knowledge of counsel for Douglass; and the same is further objected to as wholly incompetent and inadmissible.)

(Without waiving any of the objections heretofore made, counsel for Douglass further cross-examines.)

×-Q. 21. The Mr. Chisolm, to whom you referred, is Assistant Examiner of Interferences and the Mr. Orrick to whom you referred is another Assistant Examiner of Interferences. This is correct, is it not?

A. Both of the gentlemen referred to are assistant examiners in the Interference Division, and Mr. Chisolm, I understand, is the Assistant Examiner in charge of the division when the Examiner of Interferences is absent. I desire to state that while Mr. Chisolm accompanied Mr. Orrick and myself into Mr. Emery's room when we went in there so that I could make the tests, he did not remain during such tests.

×-Q. 22. Mr. Orrick, however, did remain during the tests.

A. He did; he was present during the entire time that the exhibit was in my possession, or even out of the box containing the interference files.

×-Q. 23. State what, if anything, you said during the entire test or tests in the presence of Mr. Orrick?

A. I don't think it would be possible for me to state all that I said in Mr. Orrick's presence, but I remember telling him in effect that this was an interference that was being quite vigorously contested and that I was compelled to trouble him because Mr. Mauro wished to avoid any possible criticism in connection with the tests. I think quite possibly I asked him how it sounded to his ear as to whether it was reaching a point where it was reproducing naturally or not, and I think there was some general talk as to how the Grand Records differed from the ordinary graphophone records, but I could not undertake to state in detail what it was.

×-Q. 24. What did Mr. Orrick say during this test?

A. I remember that on one or two occasions when I was holding my watch in order to determine when a minute had passed, that Mr. Orrick had his watch out and said "now" or something to that effect, indicating that a minute had passed. He asked me if I was through when I finished the tests, and when the records were put in the box he asked me if that was all he could do for me.

×-Q. 25. You gave Mr. Orrick to understand that one of the questions which you desired to ascertain by your test or tests was the particular speed at which this record you were testing was made?

A. Yes, sir; I explained to the Commissioner, to Mr. Chisolm and to Mr. Orrick, that my object was to test the record and determine accurately at what speed it was made.

×-Q. 26. And you gave them all to understand that the question of speed was one of the material questions in the case?

A. I don't remember that I did, unless possibly when explaining to Mr. Orrick the features wherein the "Grand" differed from the ordinary record. I think in that case I very likely explained to him that high surface speed was an important feature in the formation of the record.

(The objections heretofore made are repeated.)

(Signed) SHELTON T. CAMERON.

(Counsel for Macdonald offers in evidence seven letters written by Leon F. Douglass and which has heretofore been marked for identification, the letters being dated as follows:

July 20, 1893,
Sept. 26th, 1893,

Nov. 23rd, 1896,
March 30th, 1898, No. 1,
March 30th, 1898, No. 2,
July 5, 1898, and
Nov. 12th, 1898,

and the same are marked respectively "Macdonald's Exhibit Douglass Letter July 20, 1893";

"Macdonald's Exhibit Douglass Letter Sept. 26, 1893";

"Macdonald's Exhibit Douglass Letter Nov. 23, 1896";

"Macdonald's Exhibit Douglass Letter March 30, 1898, No. 1";

"Macdonald's Exhibit Douglass Letter March 30, 1898, No. 2";

"Macdonald's Exhibit Douglass Letter July 5, 1898";

"Macdonald's Exhibit Douglass Letter Nov. 12th, 1898.")

PHILIP MAURO.

And thereupon PHILIP MAURO, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says as follows:

Question 1. State your name, age, residence and occupation?

Answer. Philip Mauro; age 41; residence, Washington, D. C.; occupation, lawyer. I may anticipate a question by stating that I am attorney for Macdonald and his assignee in this interference, am counsel in patent matters for the American Graphophone Company; I am and have been continuously for about three years a stockholder of that com-

pany, and am and have been continuously for about 15 months a director of that company.

Q. 2. How long have you known of the machine called the "Graphophone Grand"?

A. I first heard of that machine on the 19th day of October, 1898. I learned of its existence from Mr. E. D. Easton, and Mr. Andrew Devine, who have testified in this case. My interest was excited to an unusual degree by the accounts they gave me of the very remarkable performances of the instrument, which accounts I thought at the time must be an exaggeration, as they seemed to surpass what I deemed to be the limits of the possible in this art. I heard further about that instrument the same evening from Mr. L. F. Douglass and Mr. Henry Babson in a conversation that occurred during dinner at the Waldorf-Astoria, and which was continued after dinner in Mr. Douglass' room, where, at his invitation, I witnessed an exhibition of Mr. Douglass' polyphone. In the course of that conversation Mr. Douglass expressed great admiration at the results of the "Graphophone Grand," which he had heard the day previously, and said that when he first heard it he thought it was all up with his polyphone, but that on further reflection he believed the polyphone would still have a useful career in connection with the ordinary small sized records, and might even be applied to a large machine.

(Objected to as incompetent, inadmissible, also because it states conclusions, not facts, and in part as hearsay.)

Q. 3. What knowledge have you, if any, of the impression which this machine made upon the minds of persons skilled in the art and others?

A. I happened to be the means of introducing this invention to a number of persons, scientific and otherwise, in

a public way. On or about November 23rd, 1898, an exhibition of the Graphophone Grand was made before the New York representatives of various newspapers and periodicals, some of them of a scientific character. An account of this exhibition was quite widely published. I have in my hand a clipping from "The Daily Financial News" containing an account of this exhibition and a report in part of the remarks made by me on that occasion. On December 3rd, 1898, an exhibition was given to a large audience in the National Theatre in this city, at which I was present. The machine was exhibited by Mr. Macdonald, and the stage was thronged afterwards by people manifesting and expressing their surprise and gratification. In the latter part of that same month, or early in January, I casually mentioned this subject to Alexander Graham Bell, who manifested the liveliest interest in the scientific aspects of the invention, and at his urgent solicitation I consented to prepare and read a paper on the subject at a stated meeting of the Washington Academy of Sciences, which body includes all of the prominent scientific men of this city. This occurred in the lecture hall of the Columbian University in this city before a very full representation of the society and friends of the members. Very shortly after this the Dean of the Scientific Schools of of the Columbian University requested me to present the subject to the students of those schools and the professors, and I did so. Later, I think in March, 1899, at the request of the Franklin Institute of Philadelphia, I delivered an address before one of the stated meetings of that body. I may state, furthermore, as a matter of my general knowledge, that the invention in question has attracted widespread attention, and been much commented upon in print. I have in my hand a copy of the "Photographic Times"

of April, 1899, containing a typical article on this subject, illustrated by micro-photographs.

(Same objection.)

Q. 4. In the public exhibitions to which you have referred was Mr. Macdonald named as the inventor?

(Same objection.)

A. He was, in each instance.

Q. 5. State when and how you first learned that Mr. Douglass claimed to have made this invention?

(Objected to as incompetent and inadmissible and immaterial.)

A. I first learned that Mr. Douglass claimed to be the inventor of the Graphophone Grand, or to have contributed in some manner to that invention, about the middle of January, 1899. That information reached me through a letter written by Mr. George W. Lyle, of Chicago, dated I think January 11th, 1899, and which is one of the exhibits in this case. It came to me with the reference label which is still attached to it, and on its receipt I wrote, on January 15th, 1899, to Mr. Taylor E. Brown, of Chicago, asking him to see Mr. Douglass, and inquire as to the facts upon which the claim was based. My understanding of the matter at that time, and I may say for some time later, was, not that Mr. Douglass claimed that he had made this invention, but that he thought that some suggestions made by him while in the service of the American Graphophone Company contributed or led to the development of the invention, and that he was fairly entitled to some recognition in that regard. My understanding of what Mr. Douglass desired was that the American Graphophone Company should inquire into the matter and ascertain what might be due him, and to do him

justice in the matter. As Mr. Brown has been very unjustly criticised for seeing Mr. Douglass on this connection, I think it fair to state that I regard myself as responsible for his action, and that from past relations and from the information conveyed to me by Mr. Lyle's letter already referred to and by a previous letter dated December 31st, 1898, which I think I also had before me at the time, I had no idea that there was anything antagonistic in Mr. Douglass' attitude or intentions. I was greatly concerned that nothing should occur to delay the issue of the patent and was prepared then to co-operate in any fair arrangements that would avoid the great delay and great losses to my client which an interference proceeding would inevitably entail. My impressions as to Mr. Douglass's attitude at that time were confirmed by the reply I received from Mr. Brown, which reached me on the 1st day of February 1899, and in which I was asked to state by telegraph whether Mr. Douglass would receive his due recognition from the American Graphophone Company. I both wrote and telegraphed on that day that any inventions which Mr. Douglass made and communicated to the American Graphophone Company he would receive full credit for, and I may state that it would have been a part of my duty to see that he did so, and I should have discharged that duty with the utmost satisfaction.

I did not receive, in consequence of my efforts then, any evidence or information indicating that Mr. Douglass had, in any degree whatsoever, contributed to the invention of the Graphophone Grand, and as I learned about a month later that he had filed an application for patent and intended to contest the matter, I made what subsequent overtures I deemed advisable, directly to his counsel.

(The answer is objected to as incompetent and inadmissible, especially in so far as it undertakes to state

conclusions, the witness's understandings and impressions, and the contents or effect of written communications, letters or telegrams.)

Q. 6. Were you present at tests which occurred in Chicago, of Douglass Exhibit 1897 Record, and if so state briefly what occurred?

A. I was, on two occasions. The first on Dec. 5th, 1899, at 107 Madison street, and the second on December 7th at the same place. On the first occasion there was no one present with me who could qualify as a witness in a matter that involved to some extent a question for experts on which it is of course to be understood I am not testifying. On the first occasion Mr. Douglass counted the revolutions of the Phonograph on which the record was reproduced, and at a speed which he announced as 120 revolutions per minute, it was very evident that the speed was much too low. He then put up the speed and after counting said it is now going at 240 revolutions per minute. I ventured to question this, and he counted again and offered to bet on the accuracy of his count, or something of that sort. The record was reproduced at this speed, whatever it was, and some observations made as to the length of time the reproduction of the record consumed at several different speeds. I refer to this matter mainly because in one of Mr. Adcock's questions it was assumed that this record was counted by several persons in my presence, and I wish to state that the only count made in my presence was by Mr. L. F. Douglass, and that his brother, Charles Douglass, who stood by, merely observed what was said and done, as I did. I was also present at the tests on December 7th, when the counting was done by Mr. Macdonald and by Mr. John W. Munday, in regard to which Mr. Macdonald and Mr. Devine have testified in this case.

Q. 7. Did you prepare the paper headed "Memorandum Graphophone Grand" and which has been identified by Mr. E. D. Easton and Mr. Andrew Devine; and if so, state when it was prepared and why?

(Objected to as incompetent, inadmissible and immaterial.)

A. I did. I had been informed by both of the gentlemen referred to in the question, as well as by Mr. Macdonald, of the exhibition of the Graphophone Grand to Mr. Douglass, on October 18th, 1898. Having been advised that an interference proceeding would probably be instituted I deemed it important or advisable, having in mind the uncertainties of life and the failure of memory after lapse of time, to preserve a brief outline of the statements that had been made to me, and this paper was written with that object. It was prepared on or about March 1st, 1899, and the writing thereon which appears over my name was written and signed by me on that day.

(Answer further objected to, being a mere statement of the witnesses secret intentions, thoughts or objects, as contradistinguished from facts, and which are obviously not evidence for any purpose.)

(The paper identified by the witness is offered in evidence to be marked "Macdonald's Exhibit Memorandum Graphophone Grand.")

(Objected to as improper, incompetent and inadmissible.)

Cross-examination by Mr. Adcock:

X-Q. 8. In giving your deposition you have put the questions as well as answered them?

A. Yes.

×-Q. 9. In addition to your communications with Mr. Taylor E. Brown, or Poole & Brown, to which you have referred to as being made by letters and telegrams, you have also had a number of oral communications with Mr. Brown over the long distance telephone during the period, say, from November 15, 1898, to March 1st, 1899?

A. I do not recall any conversation with Mr. Brown or with either of the firm over the long distance telephone during the period you mention, or in connection with this subject. I do recall that between the dates you have named both Mr. Poole and Mr. Brown were in Washington, at different times, and that I had a conversation with each of them on various subjects, including the one under inquiry.

×-Q. 10. Have you the letter, or a copy of it, which you state you wrote Mr. Brown on January 15th, 1899, and to which you have referred?

A. I have not the letter, but I suppose there is a copy of it in the press copy book of my office. I have never looked to see, but it ought to be there.

×-Q. 11. Will you produce the copy for me to see?

A. I will not.

×-Q. 12. Why do you refuse to permit a full disclosure of the contents of your letter to Mr. Brown in relation to this matter?

A. The correspondence, as of course you know, relates to the affairs of a client. I have not the letter before me and it is quite possible that there is nothing in it which I would object to showing you. The letter, however, has been referred to simply as an incident to fix a time or date and I shall not take the responsibility in this case, either of waiving the privilege of my client, or of opening the door to further irrelevant matters.

(The witness's testimony in relation to the contents and also as to the particular date thereof is now further objected to as incompetent and inadmissible, it now clearly appearing that the same is not the best evidence.)

×-Q. 13. Do you likewise refuse to produce for me to examine the other letters and telegrams to which you referred as having passed between you and Mr. Brown in relation to this matter?

A. I consider Mr. Brown's report or reply to me as material in rebuttal of a portion of Mr. Douglass' testimony and for that reason propose to examine Mr. Brown in this case, and also to put the said report in evidence. Having searched diligently in my office here and in New York for the original, and not having yet been able to find it, I propose to introduce the carbon copy, which Mr. Brown retained in his office. As this letter of Mr. Brown's was undated, (as appears from my reply thereto acknowledging his "undated" letter), I propose also to offer in evidence my telegraphic and written reply to show the date of its receipt. None of these original papers are in my possession, but I have what I believe to be correct copies, which you are welcome to see if you desire to question me about them.

×-Q. 14. The two copies of letters which you have shown me are one from Mr. T. E. Brown to you, dated January 30th, 1899, and one from you to Brown dated Feby. 1, 1899, and which I understand you propose to introduce in evidence on the taking of Mr. Brown's deposition. Is that correct?

A. Yes, that is my intention.

×-Q. 15. Have you any prior letters or telegrams to or from Mr. Brown in relation to this matter, or copies of the same, other than the one to which you have already referred as being dated January 15th, 1899, and written from you to Brown; and if so, will you please produce them?

A. The first communication of any sort between Mr. Brown and myself on this subject was my letter to him of January 15th, 1899. The reply of Mr. Brown received by me February 1st, 1899, and which I believe to have been written on January 30th, 1899, was his first communication to me on this subject, with the exception of a brief letter written and received somewhere between the two dates mentioned, and which merely stated that owing to his absence from Chicago and other causes he had been unable as yet to see Mr. Douglass but would do so and report to me at the first opportunity.

×-Q. 16. When this matter of Douglass' claim of invention to the invention involved in this interference was first referred to you, you had submitted to you Mr. Douglass' letters to Mr. Easton, dated March 23, April 2, and April 5, 1898, and which have been offered in evidence in this case. That is correct, is it not?

A. No; those letters were not shown to me at that time, and not until some time later. My recollection is that on receipt of Mr. Lyle's letter of January 11th, in which a reference is made to a letter or letters of Douglass to Easton, I inquired as to what the Douglass letters contained and was told in a general way that there was some reference to using a large cylinder of the Tainter type for the purpose of placing more matter on a single record. My best recollection is that I did not see the letters themselves until possibly a month or more after this. I distinctly recollect that I asked to have all of Mr. Douglass' collected for my examination and that some little time intervened between the time of the request and the time the letters came to my hands.

×-Q. 17. Referring to the statement in Mr. Lyle's letter of December 31, 1898, to the effect that he told Mr. Douglass, at an interview referred to in that letter, substantially

that Mr. Easton, the American Graphophone Company, or some one on their behalf, had already obtained patents on the Graphophone Grand in all European countries, and Japan, and conveying in a subsequent portion of the letter the impression that you had stated that such patents were allowed, please state whether or not it is true, that at this date, December 31st, 1898, such patents had been obtained, allowed, or even applications for them filed.

A. I have not the records before me at this moment, but I am quite certain that no foreign patents had been granted or issued at that date, though I am equally sure that the applications had been executed and probably lodged. It is very evident that either Mr. Lyle or his informant did not distinguish with precision between an application for a patent and its grant.

×-Q. 18. Please refer to your records and state the date when the first foreign application was filed?

A. By referring to my office records I find that the English patent, No. 26,219, is dated December 12th, 1898, which would consequently be the date of the application in that country. Other European applications were filed at various dates during the month of December.

×-Q. 19. The English patent was not granted until several months thereafter?

A. That is correct.

×-Q. 20. The first test of the Douglass 1897 Record made at 107 Madison street, Dec. 5, 1899, was made at your request and during the cross-examination of Charles H. Douglass, and the second test of said record made on December 7th, 1899, at the same place, was also made at your request, and you then had Mr. Devine and Mr. MacDonald present to witness the same?

A. As I recall it, the first test resulted from a polite invitation, I think from Mr. Munday, offering me an opportu-

nity of hearing the record reproduced, if I desired it. In that sense it may be said that it was done at my request. The second was done at my specific request and on my initiative.

×-Q. 21. Your cross-examination of Mr. Charles H. Douglass was adjourned or interrupted in order to make the test, was it not?

A. Yes. I think the record shows that.

Cross-examination closed.

(Signed) PHILIP MAURO.

(Counsel for Macdonald states that the testimony on his side is closed with the exception of the deposition of Taylor E. Brown, and it is agreed that such deposition shall be taken just before the first session for testimony in rebuttal that may be fixed to occur at Chicago.)

IN THE UNITED STATES PATENT OFFICE.

DOUGLASS }
v. } Interference No. 20,090, "Recording and
MACDONALD. } Reproducing Sound".

Certificate of Magistrate.

DISTRICT OF COLUMBIA, ss:

I, REEVE LEWIS, Notary Public, in and for the District of Columbia, do hereby certify that the foregoing depositions of Shelton T. Cameron and Philip Mauro were taken on behalf of Thomas H. Macdonald, pursuant to agreement between counsel, at the offices of Mr. Philip Mauro, No. 620 F street, city of Washington, D. C., on the 29th day of January, 1900; that said witnesses were by me duly sworn before the commencement of their testimony; that the testimony of said witnesses was reduced to typewriting by myself; that the opposing party, Leon F. Douglass, and his counsel, Mr. Adcock, were present during the taking of said testimony; that the taking of said testimony was commenced at 9.30 o'clock and concluded in the afternoon of the same day; that I am not connected by blood or marriage with either of said parties, nor interested directly or indirectly in the matter in controversy.

In testimony whereof I have hereunto set my hand and fixed my seal of office this 29th day of January, A. D. 1900.

REEVE LEWIS,

[SEAL.]

Notary Public, District of Columbia.

IN THE UNITED STATES PATENT OFFICE.

DOUGLASS }
 vs. } Interference No. 20,090.
 MACDONALD. }

CHICAGO, February 6th, 1900.

Met pursuant to adjournment at Room 805 Marquette Building, before Bertha A. Price, a notary public.

Present: Mr. ADCOCK and Mr. MAURO.

TAYLOR E. BROWN.

And thereupon TAYLOR E. BROWN, a witness produced on behalf of Macdonald, being first duly sworn, deposes and says in answer to questions by Mr. MAURO:

Question 1. State your name, age, residence, and occupation?

Answer. Name, Taylor E. Brown; age, forty years; residence, Chicago, Ill.; occupation, attorney-at-law.

Q. 2. Are you acquainted with Leon F. Douglass, one of the parties to this interference?

A. I am.

Q. 3. Did you, some time ago, see Mr. Douglass to ascertain for me what claim he made in connection with an invention known as the Graphophone Grand?

A. I did.

Q. 3. What was the date of the first interview you had with Mr. Douglass on that subject?

A. Monday, January 30th, 1899.

Q. 4. How do you fix that date?

A. I fix it in January of last year from general recollection. I fix it specifically on Monday, January 30th, 1899, first, by the fact that I wrote a letter, or rather dictated a letter, to Mr. Mauro on that date on the subject of this interview, and, secondly, because that was the anniversary of

my wedding day, and certain social matters occurred between the two interviews that I had with Mr. Douglass on that day and connected the two inseparably in my mind. The letter that I refer to as having dictated to Mr. Mauro was made in duplicate, as is my custom, and I here produce the carbon copy thereof from my office file.

I may further say that I fixed the date because that letter asked Mr. Mauro to reply by telegraph on Wednesday, which would be two days later, and on Wednesday, February 1st, I received from Mr. Mauro both a letter and a telegram in reply to my letter and which I here produce, so that I have no doubt whatever in my mind as to this date.

Q. 5. Please produce and read as part of your answer the report dictated by you on January 30th and the letter and telegram dated February 1st, 1899, to which you have referred.

(Objected to as incompetent and inadmissible and improper and irregular, and also as not the best evidence.)

A. The letter that I dictated to Mr. Philip Mauro on January 30, regarding this matter, reads as follows:

"CHICAGO, Jan'y. 30, 1899.

"MR. PHILLIP MAURO,
 Washington, D. C.

DEAR SIR:

In reply to your recent letter respecting "graphophone grand" I have to state that after several efforts, I have now succeeded in having an interview with Leon F. Douglas.

Mr. Douglas seemed under no embarrassment whatever when I broached the subject to him and expressed his entire willingness to talk and once during the interview pretended to be confidential. He claims to have conceived the idea of an enlarged record blank

about two years ago. He produced letters written to Mr. Easton at various times in which the idea of an enlarged blank was mentioned by him to Mr. Easton. You probably have these letters or at least have access to them. He claims to have disclosed this invention to at least a dozen people about a year and a half ago at which time he claims to have made a record by taking an Edison mandrel (one of the original Edison tin foil machines) and building up upon it a record blank, using ordinary candle wax. This was made six inches in diameter and a record cut upon the blank produced good results. That original record he claims not to have in his possession but does claim to have other records made in a similar manner at a later period the dates of which he did not disclose.

Mr. Douglass claims also that he consulted Munday, Evarts & Adcock, of this city, on this subject, and that an application for United States Patent was prepared by them complete and ready for his execution. Douglass is not at all friendly to Macdonald and was strongly tempted to file an American application and contest the question of invention with Macdonald. He seems disappointed because the American Graphophone Company should have acquired the invention through Macdonald and not through him. He said that he would very willingly have made the application and assigned it to the company had he been called upon to do so. He admitted that he had considered with Munday, Evarts & Adcock, the question of his obligation to assign the invention to the A. G. Co., but he did not tell me the result of the consultation. He did say that they had advised him from his documentary and other evidence he would certainly prevail in an interference contest. I surmise, therefore, that they also advised him that if he did prevail, the invention would belong to the A. G. Co., and it was for that reason alone that he has withheld the filing of his application. He told me that he had filed a number of applications for patent, three of them since the first of January upon different inventions.

He talked as though the question of filing the application was not yet settled, but simply being held in abeyance and it was his suggestion that he would wait further before doing so until I should hear from you. While we talked frankly, however, he seemed also to desire to impress me with the idea that not only were his relations friendly to Mr. Easton but to the company as well. He cited the fact that recently Mr. Edmonds, Dyer's partner, was in Chicago taking depositions and the people on the other side wanted him, Douglas, to testify and he refused. They threatened to subpoena him and said they would compel him to testify and asked if he would not tell the truth when on the stand and he replied that, of course, he would tell the truth in such a way as to make his evidence favorable to and not against the American Graphophone Company. He also cited the fact that when down east on this last trip, the Edison people had sent for him stating that they had heard that he made claims to this invention and asked him to apply for the patent and assign it to them and that he refused to do so or to disclose the matter to them except in so far as to admit the patent should have been taken out by the A. G. Co., as his invention and not as the invention of Macdonald. Mr. Douglass leaves for California on Wednesday or Thursday of this week. I trust that the foregoing information will be of service to you although I could not pin Mr. Douglass down to any dates more definite than those above stated, nor would he say that he had a graphophone grand or that I could see one. He thought the Columbia Phonograph Company might have one at their State street office. He did state very definitely that he was prepared to prove by ten or a dozen witnesses priority of invention unless Macdonald could carry his invention back beyond a year and a half. I shall be pleased to be of any further service to you in this or any other connection.

Yours very truly,

P. S. Since writing the above letter Mr. Douglas has called at the office. He tells me that he was phoned

this afternoon by Munday, Evarts & Adcock to the effect that his application was completed and ready for signature and that he called there and informed them that he would not execute the application until he had heard from me. He said that he had told them that he had given me his word that the case would not be filed until I had had an opportunity of conferring with you by mail and for that reason he would hold the application. I did not understand him to say this morning that the matter was in process of preparation. I rather inferred from what he said that the case had been prepared sometime ago.

I asked him what sort of a proposition he wanted me to make to you and he said that he did not know what to say except that he wanted the credit for the invention and that to have this credit before the trade would be money in his pocket. I asked him if he meant by that to suggest a monetary consideration for the transfer of his claim to the company and he said no, not in the least. I pointed out to him that if he should file an United States application, it would probably be impossible for the company to obtain a valid patent in his name abroad and that it might be very much easier to minimize any claim of invention that he might have to-day. He said, 'Well, he did not care how it was fixed up. He wanted the credit for the invention, however.' I said, 'Did I understand you to say this morning that you did not have the original six-inch record still in your possession?', to which Douglass replied: 'Yes. That is correct.' 'But I have got several records made before I went to work for the company in an experimental way, records that I made out at my house. I had a person who had never used a graphophone prior to that time sing into the machine and make a record for me. This was the very first record that he ever made and he would be very apt to know it and remember it and I have other witnesses, five or six who would testify to my use of a record six inches in diameter at that time. I have submitted the whole matter to Mr. Adcock and he says there would

be no difficulty in my proving priority of invention over Macdonald.'

Mr. Douglass this afternoon stated that he expected to go to California on Wednesday evening and asked me how soon I intended to report to you. I told him that I expected to write this evening. He then urged me to write at once so that you would be certain to have the letter by Wednesday morning and that I should ask you to reply by telegraph on Wednesday what suggestion you had to make with regard to the filing of his application. He would like to settle this matter before he went away.

Yours very truly,

T. E. BROWN.

Dic. R. C. V."

(Counsel for Macdonald offers in evidence the documents referred to in the last answer of the witness, to be identified as follows:

Macdonald Exhibit, Brown Report, Jan. 30, '99.

Macdonald Exhibit, Mauro Telegram, Feb. 1, '99.

Macdonald Exhibit, Mauro Letter, Feb. 1, '99.)

(Objected to as incompetent and inadmissible, also as copy offered is not the best evidence.)

Q. 6. My letter of Feb. 1, acknowledges receipt of your "undated" letter, while the report of Jan. 30, has at the top the words in pencil "Chicago, Jany. 30, 1899." Please state if you know who wrote that date and when?

A. I wrote this date the next day, January 31st, 1899, the circumstances being as follows: The letter was written and mailed to Mr. Mauro without my seeing it. I have already stated that I had two interviews with Mr. Douglass on January 30, and this letter is written with a postscript which refers to my second interview with him. The first interview was at his office in the forenoon, and after return-

ing from his office I immediately dictated this letter, that is all except the postscript. After dictating this letter I went out to luncheon with Mrs. Brown and with Mr. and Mrs. Millard, of St. Louis, Mrs. Millard being my wife's cousin, and on account of this being our anniversary date I remained out at luncheon longer than is usual, returning sometime after two o'clock. Between two and three o'clock Mr. Douglass called at my office and after this second interview with him I dictated to my stenographer the matter which appears as the postscript of this letter.

I left the office early in the afternoon and before any of my correspondence was signed, because I had arranged to go to the Auditorium Hotel and escort Mrs. Millard to my house to dinner, after which we were all going to a card party at my father-in-law's, this being also the anniversary of his wedding.

The next morning I looked over this letter and noticing the stenographer had no date on this one of the two copies, I placed it there in pencil as you now see it.

Q. 7. According to your present recollection does or does not your letter of January 30th, 1899, correctly state what occurred at your interviews with Mr. Douglass on that date?

(Objected to as leading, incompetent and inadmissible.)

A. It does so far as the substance of the interviews are concerned. I did not in the letter, as I did in the postscript, undertake to state the exact language used, and I doubt if I can do so now.

Recess until 1.30.

(Answer continued.)

The telegram referred to is as follows:

"WASHINGTON, D. C., Feb. 19.

"POOLE & BROWN,
Chgo.

Any invention made by Douglass in the service of the Company, and which he communicates to them he will obtain full credit for.

MAURO."

This is on a Postal Telegraph blank; is in the usual form and contains my office-receiving stamp "Received Feb. 1 1899. Answered by B." The letter "B" being in pencil.

The letter of February 1st from Mr. Mauro to me, above referred to, reads as follows:

"WASHINGTON, Feb. 1, 1899.

"TAYLOR E. BROWN, Esq.

MY DEAR BROWN:

Your letter (undated) regarding Douglass has been received, and contents noted with great interest. The matter is delicate and important, and it will be necessary to handle Douglass very judiciously. It is clearly his obligation to disclose to the Company fully any patentable invention which he may have made or perfected in their service. Had he done so, he would certainly have obtained all credit, and whatever else may be due him. If, however, he proceeds antagonistically, through attorneys of his own selection, the matter rests on very different footing.

Whatever he may have intended, the references in his letters to a large cylinder were not understood as a disclosure of the 'Graphophone Grand' or of any patentable invention. Moreover, when he first heard that instrument he was carried off his feet with astonishment. Therefore, his claim tardily put forward, of prior invention was a complete surprise to us. Nevertheless, if he be in reality the inventor, it is not too

late to obtain his proper recognition, if he seeks it in the right way.

This is the position I would take with him.

Now for your own information, and to be carefully guarded from him, I doubt if Douglass, even now understands the process whereby the new result is obtained. The size of the cylinder has nothing to do with it, but if that's his idea it's important that he should *not* be enlightened. I would be glad if you could secure permission to examine D.'s specification and inform me what it claims. This, of course, you could hardly do before D. returns from California. Meantime I will wait with interest to hear whether or not D. has filed his application.

Yours very truly,
PHILIP MAURO."

Cross-examination by Mr. ADCOCK :

×-Q. 8. You are one of the attorneys for the American Graphophone Company?

A. In a sense, yes.

×-Q. 9. The American Graphophone Company is the assignee of the invention of Thomas H. Macdonald, which is involved in this interference, is it not?

(Objected to as incompetent, and as being a matter of record.)

A. While I understand that is so, I do not know it to be a fact.

×-Q. 10. You also appear as one of the attorneys of record for the American Graphophone Company in a certain suit brought by it in the United States circuit court here at Chicago for the purpose of compelling Leon F. Douglass to assign to said company his application for letters patent involved in this interference, do you not?

A. Yes.

×-Q. 11. You are also one of the attorneys or solicitors of record for the American Graphophone Company in each of the other suits brought by the American Graphophone Company against Mr. Douglass and others, are you not?

A. Yes.

×-Q. 12. The paper marked "Macdonald Exhibit Brown Report, Jan. 30, '99" contains, as I understand it, your report of certain things that Mr. Douglass said to you; but it does not contain any account or report of what you said to Mr. Douglass, with the exception of the substance of a few questions recited in the postscript. Is that correct?

(Objected to as immaterial and because the letter in evidence speaks for itself.)

A. It would appear so from a perusal of the letter.

×-Q. 13. In this report you only undertook to give the substance of Mr. Douglass' statements to you, with the exception of the quoted matter in the postscript. Is that so?

A. Yes; I so stated in my direct examination.

×-Q. 14. And you say so now?

A. Yes, with this qualification, namely, that I do not wish to be understood as testifying that this report contains everything or the substance of everything that occurred at the interviews referred to, but that it does contain that which I considered at the time I was making it as the essential and important features of the matter inquired of by Mr. Mauro.

×-Q. 15. You did not deem it important to include in your report what you said to Mr. Douglass?

A. Not at all.

×-Q. 16. And therefore, omitted that from your report?

A. Well, I don't know that I had any specific reason at the time for omitting what I may have said to Mr. Douglass from my report to Mr. Mauro, excepting this, I wanted to

report what Mr. Douglass had given me by way of information.

×-Q. 17. And you did not think it important to report what you said and did not report what you said?

(Objected to as immaterial and as a mere repetition.)

A. I think I have fairly answered the question in my preceding answers.

×-Q. 18. Do you know Mr. George W. Lyle, manager of the Chicago branch of the Columbia Company, the selling agent of the American Graphophone Company?

A. I do.

×-Q. 19. About how long have you known him?

A. I should say about two years.

×-Q. 20. Prior to your interview with Mr. Douglass at his office, and which you have testified occurred January 30th, 1899, did you have any interview or interviews with Mr. George W. Lyle?

(Objected to as immaterial and not germane to the direct examination.)

A. Yes.

×-Q. 21. When did you have your first interview with Mr. Lyle in relation to this matter of the Graphophone Grand invention in relation to Mr. Douglass, in connection therewith?

A. January 16th, 1899.

×-Q. 22. About January 16th, 1899, did you get a letter from Mr. Mauro in relation to this matter of Graphophone Grand and Mr. Douglass?

A. Yes, sir.

×-Q. 23. Did that letter from Mr. Mauro request you to see Mr. Douglass?

A. It did.

×-Q. 24. Between January 15th and January 30th, 1899, did you receive any further letter from Mr. Mauro in relation to the Graphophone Grand or in relation to Mr. Douglass?

(Objected to as immaterial.)

A. I did not.

×-Q. 25. Any telegrams or long distance telephone communications with him?

A. I did not.

×-Q. 26. Between January 15th and January 30, 1899, did you write to Mr. Mauro in relation to Mr. Douglass or in relation to the Graphophone Grand?

(Objected to as immaterial.)

A. I did, I think twice.

×-Q. 27. Under what dates?

A. First, on January 16th, 1899, and once between that date and January 30th. I am not quite certain, but I think it was the 19th.

×-Q. 28. Will you produce for me to examine copies of your letters to Mr. Mauro of January 16th and January 19th, 1899, to which you have referred?

(Counsel for Macdonald objects to the question as immaterial and also on the ground that matters cannot be called for the mere purpose of examination by the counsel and the witness is instructed that he need not produce the letters.)

A. No, sir.

×-Q. 29. Why not? You are a lawyer and you know that the remainder of this correspondence, of which a fragment has already been offered in evidence, is perfectly

proper to be produced for the purpose of use in this cross-examination, and also for the purpose of permitting a full disclosure of the whole truth.

(Counsel for Macdonald objects to the introduction into this record of lectures on law and especially such bad law as that presented in the statement following the question.)

A. I do not produce the letters referred to, first, because they are utterly immaterial to the matter under inquiry, and, secondly, because Mr. Mauro, being the senior counsel for the American Graphophone Company, his communications to me upon the business of the company I regard with the same force and effect as confidential communications between counsel and client, which I would not be at liberty to disclose under ordinary circumstances, without the consent of the client.

×-Q. 30. You are aware, Mr. Brown, are you not, that when the legal bar to a privileged communication is once let down that the black sheep as well as the white sheep, facts against the client as well as those in his favor, are permitted to pass out, and that you have been sworn to tell not only the truth, but the whole truth, and I now again ask for the production of the letters.

(Counsel for Macdonald protests against the continuance of this frivolity and submits that the witness' legal knowledge is not a subject of inquiry in this case. He states that the only point which this witness was called upon to prove was the date of his first interview with Mr. Douglass upon the subject of the Graphophone Grand, that counsel for Douglass are welcome to any information, letters or other documents which can possibly have any bearing on that question of fact, and

that if they can show the slightest materiality in respect to the letters referred to they are welcome to them.)

(Counsel for Dougless protests against instructions being given the witness under the guise of objections, and counsel for Douglass further states that this witness on his direct examination was asked not only the date of the letter or report offered in evidence, but also as to whether the report correctly recited the matters contained in it, and that the letters called for are believed to be material, and neither the witness nor the other counsel in the case are the proper judges of the materiality of the evidence.)

A. I decline to produce the letters.

×-Q. 31. Will you produce the letter which you received from Mr. Mauro on or about January 16, 1899, in relation to Mr. Douglass's inventorship of the Graphophone Grand.

A. No.

(Counsel for Macdonald states that he has already refused to produce this letter and he now repeats this refusal.)

(Mr. ADCOCK: It now appearing that the correspondence between Mr. Mauro and Mr. Brown, heretofore offered in evidence and marked "Macdonald Exhibit, Brown Report, Jan. 30, 1899"; Macdonald Exhibit, Mauro Telegram, Feb. 1, 1899; and Macdonald Exhibit, Mauro Letter, Feb. 1, 1899," constitute but a fragment of the correspondence between Mr. Mauro and Mr. Brown in relation to Mr. Douglass' inventorship or claim of inventorship of the Graphophone Grand, the Exhibits heretofore offered are objected to as imperfect, incomplete and incompetent and inadmis-

sible, and notice is hereby given that at or before the hearing a motion will be made to exclude said exhibits and the deposition of this witness from the record, because of the witness' refusal to produce the whole correspondence of which the exhibits offered are a fragment, and because of the instruction of Macdonald's counsel heretofore given to the witness.)

(By Mr. MUNDAY, counsel for Douglass :

Because Douglass has no other adequate remedy motion is now hereby made on the record to exclude the testimony of this witness, as well as the exhibits produced by him. And also for like reasons to exclude the entire depositions of Edward D. Easton, counsel for the American Graphophone Company, and also that of Philip Mauro, Esq., counsel for the American Graphophone Company ; and also for like reasons the deposition of George W. Lyle and Thomas H. Macdonald, each and all of whom have refused to answer proper questions and disclose the whole truth and to produce letters and documents called for and which would aid in the disclosure of the entire truth.)

×-Q. 32. How many times did you go to Mr. Douglass' office in January, 1899, to see him ?

A. I went twice to see him and succeeded only once in seeing him.

×-Q. 33. Besides going to Mr. Douglass' office to see him what were the other of the "several efforts" referred to in your report to Mr. Mauro, in relation to interviewing Mr. Douglass ?

A. One of the efforts referred to by that language in my report, possibly two, were telephone messages or calls that I made from my office to Mr. Douglass' office, to ascertain if he had returned to the city. I think that the first one I

had in mind in writing that letter was an effort that I made through Mr. Lyle by telephone, inquiring of him whether he knew of Mr. Douglass was in the city.

I think he replied also by telephone that he was not. I made one other effort by calling at Mr. Douglass' place of business one day, I think about noon, and some one, I don't remember who, but an employé, informed me that he was out of the city, and the next effort and the one in which I succeeded in seeing him, was on the 30th of January, as I stated. It is possible that I may have telephoned to Mr. Douglass and made an appointment with him for the next morning, but that is not definite in my mind now.

×-Q. 34. In your interviews with Mr. Lyle in January, 1899, did he report to you his interviews with Mr. Douglass, or any interviews that he had had with Mr. Douglass in relation to the Graphophone Grand ?

(Objected to as immaterial and not germane to the direct examination.)

A. I only had one talk with Mr. Lyle in January, 1899, about this matter, and in that talk he answered my question, but did not report to me his interviews with Mr. Douglass.

×-Q. 35. Your questions to Mr. Lyle were, however, intended to bring out what information Mr. Lyle then had in relation to Mr. Douglass's claim of inventorship of the Graphophone Grand, were they not ?

(Same objection.)

A. My talk with Mr. Lyle on the occasion referred to was along the lines of my instructions contained in Mr. Mauro's letter to me that I received on or about January 16th ; but I would not undertake to say at this time what

occurred at that interview. I have given it no thought in the meantime, except in the most general way.

×-Q. 36. Did Mr. Lyle tell you anything about the line of instructions he had received from Mr. E. D. Easton, the president of the American Graphophone Company, in relation to his interviews with Mr. Douglass in regard to the Graphophone Grand?

A. I do not think he did; I recall, I think, that he read me a letter, either that he had received from Mr. Easton or that he had written to Mr. Easton on the subject, I don't know which.

×-Q. 37. Did Mr. Easton send you any instructions in regard to this matter of the Graphophone Grand or in regard to your interview with Mr. Douglass; or did you receive your sole instructions from Mr. Mauro?

(Same objection.)

A. I received no instructions, suggestions or communications from Mr. Easton or any other officer or employé of the American Graphophone Company, or the Columbia Phonograph Company relating directly or indirectly to this matter, with the exception with the instructions already testified to and I received for the first time from Mr. Mauro in the letter that reached me on or about the 16th day of January, 1899.

×-Q. 38. Between January 15 and January 30, 1899, were you in Chicago continuously?

A. Before answering that question I should like to look at my office books, because at about that period I had litigation in Green Bay, Wis., and my impression is that I was taking some depositions there about that time.

×-Q. 39. Just look it up, please.

A. I was in Chicago during the month of January, 1899, excepting on the following days, to-wit: On the 4th inst. I

was in Milwaukee; on the 5th inst. I left for Washington and remained there until Friday, the 13th, and arrived in Chicago on Saturday, the 14th.

×-Q. 40. During the entire month, excepting the days named?

A. Yes, sir,

×-Q. 41. Mr. Douglass tells me that when you came to see him at his office the first time that you told him you had just got back from a visit to Philadelphia, where you had been on some business in relation to the Lewis Motorcycle Company, and that you had formed a company for some millions of dollars, and that you had got for Lewis some half a million for his patents, and that you had not had time to straighten up your business at the office since getting back, or something of this nature. When did this motorcycle matter occur?

A. Mr. Douglass, if I ever mentioned the Lewis motor-vehicle matter to him, and I do not recall that I did, is entirely wrong as to the date. I left Chicago for New York on the 23d of February, 1899, remaining there until the first day of March, 1899, when I went to Philadelphia on the motor-vehicle business referred to. I was in Philadelphia until the 14th, I think, of March, or rather that I returned home on the 14th of March and left Chicago again on the 18th of March, for Philadelphia and New York on this and other business, and did not return to Chicago until the 17th of April, 1899. In February I was in Green Bay, Wis., on the 2d, 3d, 4th and 14th, and in April on the 25th I was in Milwaukee, so that with the exception of the dates which I have mentioned I was in Chicago during the four months. I could not have told Mr. Douglass anything about the Lewis or any other cycle company on the same day that I had my first interview with him at his office in regard to the Graphophone Grand, for the very simple reason that I

know beyond any possibility of doubt that my said first interview occurred on the morning of January 30th, 1899, and I did not return from the first of my trips East on motor-vehicle business until March 14th, 1899.

×-Q. 42. Did you go to see Mr. Douglass at his office after January 30th, 1899; and if so, when?

A. Yes, I think it was the 22d of April, or possibly the 21st.

×-Q. 43. When you visited Washington in January, 1899, did you see Mr. Mauro?

A. Yes, on Monday, the 9th of January, or possibly Tuesday; it was the first or second day of the week, I think.

×-Q. 44. Did you at this time have a talk with Mr. Mauro in relation to the Graphophone Grand?

A. I did not, as before stated; my very first information or instructions of any kind relating to this matter I received on my arrival at my office on Monday morning, the 16th of January, where I found Mr. Mauro's letter awaiting me.

×-Q. 45. Did you ever make for Mr. Mauro a copy of this letter marked "Macdonald's Exhibit, Brown Report, Jan. 30, '99"?

A. Yes, sir.

×-Q. 46. About when was that made?

A. It was the first or the second day of the last session in Chicago of the taking of evidence in this interference. I don't remember the date, but I refer to the session that adjourned on account of the death of Mr. Devine's wife.

×-Q. 47. When Mr. Mauro's deposition was being taken in Washington I called for the production of the original of this letter, and Mr. Mauro stated that he had searched for the original and had been unable to find it, but that he had a copy of it, which he believed to be correct, and which he produced and showed to me, and I understood that the copy

had been made by you. This copy Mr. Mauro showed me was without date. How did it happen that the date, "Chicago, January 30, 1899," in pencil, and which you state you put on the letter the following morning, January 31, 1899, did not appear on the copy you made for Mr. Mauro?

A. Because when Mr. Mauro asked me to make a copy of this letter, after having first stated, as he subsequently did to you in Washington, that he had mislaid the original, and after having asked me if I had a copy, we discussed whether or not the copy should be precisely as the original had been or as I had altered my second original or duplicate by placing this date upon it, and the conclusion was reached at the time that he had better have the copy an accurate copy of the letter that had been sent from my office to him.

×-Q. 48. What do you mean in this letter of yours to Mr. Mauro of January 30th, 1899, by the expression "and once during the interview he pretended to be confidential"?

A. Just what I say in the letter; he pretended to be confidential and he told me some matters that I think he should not have told me, regarding his counsel, and inasmuch as they are not germane to the case, but were purely personal and I perhaps ought to say indiscreet rather than harmful, I did not repeat them in my letter to Mr. Mauro, but simply referred to them in that general way.

×-Q. 49. What was the object of your second interview with Mr. Douglass when you went to his office in April, 1899?

A. I think I went there at that time to ask Mr. Douglass whether or not he would be willing to co-operate with Mr. Mauro in having a speedy determination of this interference which was then either declared or about to be declared.

×-Q. 50. Please state what you said to him?

A. I can't remember all that I said to him on that occasion. Prior to that time I had called at your office and I

saw Mr. Evarts and asked him about the case, or the proposed interference, and I think he told me that Mr. Adcock had the application in hand, and I don't remember whether Mr. Adcock was only out of the office or out of the city. I then went to Mr. Douglass and asked him, in substance, whether or not he would be willing to co-operate in the manner indicated, and he said that he would, and we talked the matter over a little and in the course of the conversation he expressed his ignorance as to the form of procedure by which this might be accomplished without danger to his cause, and he asked me what I had to suggest. I told him that I could not suggest anything, because it was Mr. Mauro's case and he wished me to ascertain whether or not he, Douglass, would pursue a hanging-back policy or would, in fact, co-operate to try the interference on its merits as soon as possible. I think I stated to Mr. Douglass that I understood that Mr. Mauro had communicated this suggestion or overture to Munday, Evarts & Adcock, and had received no reply from them, and I asked him if he would not see Mr. Adcock and have Mr. Adcock reply to Mr. Mauro. He said he would, but he also requested me to see Mr. Adcock, which I subsequently did.

×-Q. 51. Did Mr. Douglass appear or pretend to be confidential at this second interview?

A. This was not the second interview, but at this interview to which I have referred in my last preceding answer, I do not recall that he pretended to be specially confidential. Mr. Douglass has always treated me with courtesy and respect and as one gentleman should treat another, in the various interviews that I have had with him during the time he was connected with the Columbia Phonograph Company and since.

×-Q. 52. Recurring now to your first interview with Mr. Douglass, to which your report of January 30, 1899, applies,

and in which you report to Mr. Mauro that Mr. Douglass "pretended to be confidential," you think and wish to be understood as stating that Mr. Douglass' confidence or pretended attitude of being confidential, related and applied only to some doubt he may have felt or expressed in relation to the ability of his counsel, as compared with the well-known ability of the counsel of the American Graphophone Company, and not at all to the really trivial and unimportant matters in relation to the date of his invention and reduction to practice, witnesses, evidence in the way of records, sound records he had at his house, and other unimportant incidents and details which your report discloses you gathered from him?

A. As to those matters referred to in the latter part of your question, and referred to ironically as trivial, Mr. Douglass was not only unreserved, but very frank and apparently induced with a desire to impress upon me the correctness of his position. He rose or partially arose from his desk voluntarily, and took from some file, either on or near his desk, some letters from which he voluntarily read me a sentence or portions of sentences in which the words "large diameter" were used in connection with sound records.

×-Q. 53. And so, you think, as long as you religiously keep to yourself all doubts or uncomplimentary remarks Mr. Douglass may have made in relation to his own counsel, you are violating none of this confidence or pretended confidence that you may have inspired Mr. Douglass with, or that he may have reposed in you, by acquainting the American Graphophone Company and Mr. Macdonald, through their counsel, Mr. Mauro, with all matters you might glean from Mr. Douglass in relation to the history of his invention?

A. Not in the slightest degree; for the reason, that I did not go to Mr. Douglass under any guise of confidence, but

openly, and my very first question to him on that first interview; after stating that I had come to talk about this matter to find out something, and after he had asked me, "What do you want to know," was "When did you make this invention; when did you apply for a patent, or have you applied and have you applied for foreign patents?" Those three questions I think were put to him, if not in that order, yet right together, and Mr. Douglass answered them all and did most of the talking.

×-Q. 54. I suppose, of course, in simple fairness, at the time you got Mr. Douglass to disclose to you his dates, you took occasion to tell him what Mr. Macdonald's dates were?

A. You suppose wrong.

×-Q. 55. Now please state what you said to Mr. Douglass at your interviews with him or any of them, in relation to getting him to confide his patent application matters to you or in relation to employing you or your firm in patent applications for him?

(Counsel for Macdonald objects to the continuation of this line of cross-examination as not having the remotest bearing upon the issue.)

A. I never at any time, nor so far as I know has any member or employé of my firm, directly or indirectly, spoken to Mr. Douglass, or to any person associated with him in business, upon the subject of bringing to my office, or having done in my office any work of any character relating to inventions for letters patent. I believe Mr. Douglass on one occasion, long subsequent to the times now being inquired of, asked the opinion of one of my law clerks of the ability of the solicitors he was then employing; but this is mere hearsay. It is the nearest approach to anything that might be included in your question that I can recall at this time.

I might say, by way of information, to counsel on both

sides of this interference, that at the time I went to see Mr. Douglass and spoke to him for the first time concerning the invention in interference, I did not know, nor had I any reason to believe or suspect that Mr. Douglass had or entertained any attitude antagonistic to his former employer or any of the officers or members thereof, and knowing, without having seen the contract, that he had sustained contract relations with the American Graphophone Company to turn over inventions that he should make while in the employ of that Company, I went to him openly and frankly, as the representative of that Company to find out what were the facts concerning this claim of invention which the Company learned he had put forth, and which its counsel Mr. Mauro, instructed me to investigate; and it was only in the course of that interview after he had told me that he had an application for patent prepared or in course of preparation in the office of Munday, Evarts & Adcock, that I was forced to assume that he was not as friendly as he had formerly been, and told him frankly that I wanted to get at such information as he felt at liberty to give me, and to this he replied in substance that he had no objection to telling me whatever I wanted to know about, although as a matter of fact from that time on, in the course of that particular interview, he became no more specific than he had been before, so far as exact dates were concerned.

(All of the above answer, except the first sentence thereof, is objected to as wholly irresponsive to the question.)

Adjournment is here taken until 10 A. M. Wednesday, February 7th, 1900.

WEDNESDAY, *February 7th, 1900*—ten o'clock A. M.
Met pursuant to adjournment. Present as before.

Cross-examination by Mr. ADCOCK continued.

×-Q. 56. The agreement referred to in your irresponsible addendum to your last answer is the agreement between the American Graphophone Company and Mr. Douglass in relation to Mr. Douglass' employment as experimentalist from March 1st, 1898, to October 1st, 1898, and obligating him to assign what inventions he might make during this period, is it not?

A. As stated in my last answer, I have never seen the contract referred to, but I understand there was a contract containing some such general provisions as you have mentioned, and it was to that contract that I referred.

×-Q. 57. How many interviews altogether did you have with Mr. Douglass from say November 15th, 1898, to April 30, 1899, and please state when and where the same took place?

A. I do not remember at this time to have had any interviews with Mr. Douglass between November 15th, 1898, and January 30, 1899, on any subject. I do not even recall seeing him during that period. Between January 30th, 1899, and April 30th I had four personal interviews with him in addition to talking with him once over the telephone.

The first interview, as I previously said, was at Mr. Douglass' place of business, 107 Madison street, in the forenoon of January 30th, 1899, and lasted probably half an hour, at any rate not to exceed that time.

The second interview was on the afternoon of January 30th, 1899, between two and three o'clock, when Mr. Douglass surprised me by calling at my office. This interview did not last very long, probably not over five minutes, as

Mr. Douglass was not even seated during the time he was there.

The third interview occurred on Wednesday, February 1st, 1899, and I do not recall at this moment whether that was over the telephone or not. It was at this third interview that I either showed or read to Mr. Douglass Mr. Mauro's telegram of February 1st, that has been offered in evidence. I think I did go to Mr. Douglass' office on this occasion, but I am not certain.

I remember telegraphing to Mr. Douglass about the 19th or 20th of April, 1899, for the purpose of seeing him and I think we made an appointment. Possibly I simply telephoned his office saying I would like to see him at a certain time. At any rate I went to his office at the time mentioned and failed to see him, and went again at noon the next day, I think, and failed to see him, and finally did see him on the 22d of April, 1899, as I have previously testified.

Since I have been giving this answer, it comes to my mind that Mr. Douglass came to my office the second time, this being, I think, on the 1st of February, 1899.

×-Q. 58. State where in Mr. Douglass' office your interview of January 30, 1899, with him took place.

A. When I entered the office by the door near the elevator, I turned south and walked toward the front of the store. Mr. Douglass at that time was either telephoning or standing near a desk at the west side of the store or office, per ten or fifteen feet from the window, and he nodded to me and in a moment or two came forward and shook hands with me and then we at once proceeded to his desk, where he offered me a chair. This desk is located in the front of the office, facing the office so that when Mr. Douglass was seated at his desk his back was at or almost at the front wall, and I was seated in a chair at his left and close to him.

×-Q. 59. Before you went to see Douglass on January 30, 1899, you had already been informed, either by Mr.

Mauro or by Mr. Lyle or others, that Mr. Douglass had written certain letters to Mr. Easton during the period of his employment as experimentalist, referring to the use of a large or six-inch diameter cylinder and containing statements to the effect that the larger the cylinder the better the record, had you not?

A. No. The very first intimation that I had of any such statements or letters came from Mr. Douglass himself on the occasion of January 30, 1899, when, as I have stated, he read to me sentences or parts of sentences from letters or copies of letters.

×-Q. 60. At the time you went to see Mr. Douglass January 30, 1899, had you been informed directly or indirectly by Mr. Mauro or his client that Mr. Douglass had written a letter to Mr. Easton under date of November 16th, 1898, stating that the Graphophone Grand was one of his, Douglass', suggestions?

A. No, sir.

×-Q. 61. At the time of your visit to Mr. Douglass on January 30, 1899, had you been informed directly or indirectly that your client, the American Graphophone Company, had through Mr. Lyle informed Mr. Douglass that the American Graphophone Company, or Mr. Easton, or some one else on their behalf, had already obtained patents on the Graphophone Grand in all European countries and Japan?

A. No, sir.

×-Q. 62. At the time of your visit to Mr. Douglass had you been in any way informed that Mr. Lyle had reported to Mr. Easton by letter, that Mr. Douglass had told him, Lyle, that he, Douglass, had filed an application on a large cylinder machine more than a year before?

A. No, sir.

×-Q. 63. You were then left largely in the dark both as to the facts in relation to the history of Mr. Douglass' in-

vention and also in regard to what information the American Graphophone Company and Mr. Easton had already collected through Mr. Lyle and other sources in regard to the history of Mr. Douglass' invention, were you?

A. I was; my only information on this subject prior to this interview with Douglass on January 30th was in the letter which I received from Mr. Mauro on the 16th of January, I believe was dated the 13th, and from the short talk over the telephone with Mr. Lyle, which I had with him upon the receipt of that letter.

×-Q. 64. And that letter which you had received from Mr. Mauro gave you the impression or left you to infer that if Mr. Douglass had made this invention of the Graphophone Grand at all, that he had made it during the period of his employment as experimentalist for the American Graphophone Company, and while he was under obligations to assign it, and that consequently it was perfectly proper for you to go to Mr. Douglass and inquire when during his employment he made the invention and other facts in regard to it. Is that correct?

A. I can't say that that impression came to me solely or entirely from the sources that you have mentioned in the question, but I do say that whatever information or inference I had at that time on that subject was confirmed by Mr. Douglass' admissions to me and his voluntary statements, to which I referred in my report. Among others when he admitted that he had discussed this very question with you as his attorney.

(All of the above answer is objected to as wholly irresponsible to the question, excepting the words "I can't say that the impression came to me solely or entirely from the sources which you have mentioned in the question.")

×-Q. 65. Prior to your meeting Mr. Douglass January 30th, 1899, you had no idea that he had made or claimed to have made the invention involved in this interference, prior to his entering the employ of the Graphophone Company as an experimentalist, did you?

A. All I knew at that time was that he claimed to have made the invention of the Graphophone Grand, when I did not know. That was one of the things I wanted to find out from him.

×-Q. 66. But you knew as a lawyer that if he had made the invention prior to his entering the employment of the American Graphophone Company experimentally that it would be his own and not that of the company, would it not?

A. I have repeatedly said that I did not know the date of the contract or its contents and consequently when I went to Mr. Douglass on this occasion I did not have presented to my mind, nor did I consider the law question that you have now put to me. I may add I do not know now the date of this contract.

×-Q. 67. Your client and your client's senior counsel in this case, Mr. Mauro, left you in the dark on this point also, did they, when you received your instructions to go and ascertain Mr. Douglass' dates?

A. They gave me such instructions as they thought necessary for me to have, and I acted upon them.

×-Q. 68. If they had told you that Mr. Douglass' contract or agreement of employment as experimentalist with the American Graphophone Company began March 1st, 1898, and that they had already gathered information through their detective Lyle that Mr. Douglass had made the invention or claimed to have made the invention prior to the beginning of his employment as experimentalist, you as a reputable lawyer would have certainly refused to go and see

Mr. Douglass and get from him, prior to the filing of the preliminary statements in the interference, Mr. Douglass' dates, would you not?

(The question is objected to as immaterial, the witness' code of professional ethics not being under inquiry in this case; and the slur upon Mr. Lyle is objected to as uncalled for, and wholly out of place in the examination of another witness during Mr. Lyle's absence.)

(Mr. ADCOCK: I would amend the question by inserting "temporarily acting" before "detective.")

A. Not necessarily. It is a very common thing for inventors to be jealous of their claims of invention and to set an inquiry on foot the moment they hear of other rival inventors.

×-Q. 69. Up to January 30, 1899, your relations to Mr. Douglass had been very friendly, had they not?

A. I have so testified.

×-Q. 70. After receiving Mr. Mauro's letter, dated February 1, 1899, what, if anything, did you do to follow out Mr. Mauro's instructions to secure permission to examine Douglass' specification and inform Mr. Mauro of what he claimed, and concerning the doing of which he cautioned you as follows: "This of course you could hardly do before he returns from California"?

A. I saw Mr. Douglass and I saw his attorney, Mr. Adcock, on this subject.

×-Q. 71. When did you see Mr. Douglass and when did you see Mr. Adcock?

A. I saw Mr. Douglass on the 22d of April, 1899, and asked him if I could see his claims and also asked him if he would co-operate in expediting the interference which either

had been or was about to be declared, and he referred me to you, expressing his willingness to do everything that could be done to expedite a hearing.

I do not recall the exact date of my call upon you at your office in relation to this matter. We talked over the exchanging of copies of preliminary sworn statements in advance of the date which might be set for an interference proceeding, among other things, the result of my interview with you being an assertion on your part of a complete want of confidence in the integrity of Mr. Easton, shared by your client; in this connection you mentioned a Mr. Dickenson, and declined to enter into any arrangement on the lines I had suggested. You did state that these parties ought to get together and that Mr. Easton ought to make a proposition. And I reported the substance of this interview with you to Mr. Mauro.

(All of the above answer excepting the dates called for by the question is objected to as irresponsible.)

×-Q. 72. You had your interview with Mr. Douglass first and then you had your interview with me. Is that correct?

A. I first saw Mr. Evarts, as I testified yesterday, and he told me you were either out of the city or out of the office, and that you had charge of the case; then I saw Mr. Douglass and afterwards saw you.

×-Q. 73. Do you mean to state, Mr. Brown, that at your interview with me you made any request of me that I should show you Mr. Douglass' specification or claims of his application involved in this interference?

A. I mean to say that I requested you to state whether or not you would enter into a stipulation with Mr. Mauro that would involve an exchange of sworn preliminary statements in advance of the time set for the filing of the same

by the Patent Office and an exchange of the claims of the respective parties, Douglass and Macdonald, and an agreement to expedite a hearing, and you replied, in substance, that you were willing enough to expedite the hearing; that you did not believe the Patent Office practice would sanction any such stipulation or arrangement, and asked me if I knew just what Mr. Mauro wanted, and to this I replied generally that I did not know the details, but these were the three points that he wanted covered, and it was after that that you expressed the opinion that you did, which I previously referred to, and I am therefore very certain, in fact haven't the slightest doubt in my mind, that I did ask you on that occasion to make an arrangement whereby we could see the Douglass claims.

×-Q. 74. What you now refer to is the matter of Mr. Mauro's letter to us, dated after his letter to you of February 1, 1899, in which letter of Mr. Mauro to us he makes a suggestion or proposal about exchanging preliminary statements and dates for the purpose of expediting the interference, and which letter I think we did not answer; but what I have been inquiring of you about is another matter entirely, namely, what, if anything, you did to carry out Mr. Mauro's instructions about getting permission to examine Douglass' specification, as given to you in Mr. Mauro's letter of February 1, 1899. Now I wish you to state whether or not prior to the talk you had about exchanging preliminary statements or dates and what that would necessarily involve in an exchange of copies of specification, you made any request to me in obedience to Mr. Mauro's letter of instructions of February 1, 1899, for permission to see Mr. Douglass' specification or claims?

A. I may have done so, but I do not now recall it.

TAYLOR E. BROWN.

Mr. MAURO:

Since arriving in Chicago I find a mistake in my deposition and which, though it may not be of any importance, I desire to correct, and to be considered under oath for that purpose. In testifying in Washington from recollection I stated that my first letter to Mr. Brown relating to Mr. Douglass and the Graphophone Grand was written on January 15th, 1899. On seeing the letter here in Mr. Brown's files I find that it was dated January 13th, 1899.

I also referred in answer to a cross-question to the receipt from Mr. Brown of one short letter between the date of my letter and the date of his letter of January 30, (reporting his first interview with Mr. Douglass) and giving reasons why he had not been able to see him. From Mr. Brown's files, to which I have had access yesterday, it appears that there were two letters in this period instead of one, and while I have recollection of only one I have no doubt I received them both.

PHILIP MAURO.

Testimony on behalf of Macdonald is closed.

IN THE UNITED STATES PATENT OFFICE.

LEON F. DOUGLASS }
v. } Interference No. 20,090.
THOMAS H. MACDONALD. }
STATE OF ILLINOIS, } ss:
County of Cook, }

I, Bertha A. Price, a Notary Public within and for the County of Cook, and State of Illinois, do hereby certify that the foregoing deposition of Taylor E. Brown was taken on behalf of the defendant, Thomas H. Macdonald, by agreement (notice being waived) before me, at room No. 805 Marquette Building, in the City of Chicago, in said County, on the 6th and 7th days of February, 1900; that said witness was by me duly sworn before the commencement of his testimony; that the testimony of said witness was written out by myself; that opposing party, Mr. Leon F. Douglass, and his attorneys, John W. Munday and Edmund Adcock, were present during the taking of said testimony; that said testimony was taken at said room No. 805 Marquette Building, Chicago, Ill., and was commenced at eleven o'clock on the 6th day of February, 1900, and was continued pursuant to adjournment on the 7th day of February, 1900, and was concluded on the 7th of said month; that I am not connected by blood or marriage with either of said parties or interested directly or indirectly in the matter in controversy.

In testimony whereof I have hereunto set my hand and affixed my seal of office at Chicago, in said County, this 8th day of February, 1900.

[SEAL.]

(Signed) BERTHA A. PRICE.

Exhibits.

Edward E. Easton, Wm. E. Bond, Wm. Herbert Smith,
President and Gen'l Manager. Vice-President. Treasurer.

Directors :

Edward D. Easton.
Chas. S. Tainter. American Graphophone Company,
John J. Phelps.
R. O. Holtzman. Factory: Bridgeport, Conn.
W. E. Bond.
Andrew Devine. Principal Office:
R. F. Cromelin. No. 919 Pennsylvania Avenue,
Wm. Herbert Smith. Washington, D. C.
Frank Dorian.

T. H. Macdonald, Manager.

BRIDGEPORT, CONN., January 7, 1897.

Mr. E. D. Easton, President
American Graphophone Co.,
1157 Broadway, New York.

DEAR SIR:-

Referring to the matter of special machine and cylinders for two-hour run:

I have gone over the matter as carefully as possible in the short time at my disposal, and I am of the opinion that a machine can be built that will run at least two and one half hours on one cylinder.

I should prefer to follow somewhat the outline of the phonograph body in the main machine, with however the concealed screw feed, as on the Graphophone.

The cylinder would be four and one half ($4\frac{1}{2}$) inches in diameter, by thirteen (13) inches in length. The feed would be two hundred (200) per inch on the cylinder. The cylinder would weigh about two and one half ($2\frac{1}{2}$) pounds, and we could make them in quantities for about

45¢ each. Our material is worth about 12¢ per pound in the prepared state, therefore the material would be worth about 30¢ per cylinder. I am of the opinion that we could make them at a fair profit for 15¢ over the cost of material. There may be some difficulty in casting a perfect cylinder as large as this, but I think not.

We would use the large tandem motor, the nine-spring motor, that is now in my office as the type of motor for the machine.

I would provide the main machine with an end gate, similar to the phonograph.

The whole when assembled would weigh about 100 pounds without a cabinet, possibly 115 pounds complete. It is probable that this weight would be easily reducible when the model had been gone over carefully, and a proper distribution of weights made, but the model would weigh about as I have given.

I would prefer to make the recorder and reproducer in the form of a spectacle, provided both were wanted on one machine.

The recorder point would be cupped, and about 23/1000 of an inch in diameter. The reproducer would be about 19/1000 of an inch in diameter.

My calculations for arriving at the size of the cylinder, the only practical problem in the question, were roughly as follows:

I have found by experiment that I can make a fair record on a surface speed of the cylinder of about 250 inches per minute, or a revolution of the present cylinder of 35 per minute. Assuming a diameter of $4\frac{1}{2}$ inches, then, we would have the circumference a little over 14 inches. Assuming then 250 revolutions, or threads, to the inch, this would make a working track of 14x200, or 2800 inches of track on one inch of cylinder length. As we use this at the rate of 250 inches per minute, it would require 11 minutes to use one inch of the cylinder surface, and as the cylinder is 13 inches long the entire capacity would be 11x14, or 154 minutes, or two hours and thirty-four minutes.

I estimate that it would cost us about \$750.00 to build

the model and prepare for making a cylinder for testing it. There would be considerable work in preparing to make the cylinder alone. It would involve molds, reamer, turning off apparatus, paring device, etc. In the main machine there would be three patterns to be made, and of course all work would of necessity be done by hand at the rate of 30¢ per hour, actual outlay.

If Mr. Lehman could be persuaded to use a shorter cylinder, I think we could give him a 30 minute record on the present form of the Type B machine. I hardly think it would be possible to go over that, however.

It would probably take six weeks to two months to properly make and test the apparatus herein specified.

Duplicating machines, under our process, could be made to work on the cylinders mentioned here, without great difficulty. This I have not given much thought, however, and am hardly prepared to say the cost of same at present time.

Very truly yours,

T. H. MACDONALD,
Manager Factory.

In the U. S. Patent Office.

Leon F. Douglass

vs.

Thomas H. Macdonald.

} Intf. No. 20,090.

"Macdonald Exhibit, Macdonald Letter of Jan. 7, 1897."

C. E. D.,
N. P.

Jan. 25, 1900.

Columbia Phonograph Company Gen'l.
Sole Sales Agent for the
American Graphophone Company.
Long Distance Telephone.
Edward D. Easton, President,
211 State Street,
CHICAGO, ILLS.,
November 12, 1898.

George W. Lyle, Manager.

MY DEAR EDWARD:—

I am in receipt of your letter under date of November

9th, referring to the Polyphone attachment on the Phonograph, also the new "Jumbo" machine.

In connection with the first matter would state that I saw Mr. Douglass and gave him to understand as distinctly as I could, your feelings in regard to the Polyphone being used in connection with the Phonograph, and he seemed to be a little cut up about it, asking me to write you and state that it was not his intention to put the attachment out on the Phonograph, but he was simply using a few on actual orders they had, for which the money either had to be refunded or they to make delivery of something.

Coming next to the "Jumbo" machine, he stated that before he could see his way clear to purchase one or more of them at the price mentioned, he would want to know how long the price of \$250. would be guaranteed, and also what the possibilities in regard to output were, so that he could have some idea of how long he could have anything like a corner on them.

In this connection I feel as though I ought to register a wee bit of a "kick" to think that here is a new machine manufactured by our Company and actually on the market—orders being taken for it, and yet I never had even the slightest intimation that we were going to have a machine of the kind, and today, to save my life, could not give a customer the slightest idea in connection with it. Further than this, one of our customers informed me today that the \$500,000 worth of Debenture Bonds which are to be issued, were going to be used by the Company in starting retail offices in all the cities of any size, in the United States. In other words, that the Company purposes marketing their own goods. Is there anything in this rumour?

Acting under the authority of your telegram in reference to Wheeler and Minneapolis, would state that Mr. Wheeler is starting for Minneapolis tonight, receiving a stated salary of \$22.50 per week, out of which he pays his own living expenses, he to secure Office Room, Help, and other matters as per our letter of recent date, total expense including salary, not to exceed \$50.00 per week, and we certainly trust that he can make this a paying venture for us for some

time to come by being there on the ground, and establish accounts that may prove substantial.

With best wishes, believe me

Very sincerely yours,

GEO.

E. D. Easton, Esq.,
New York City.

U. S. Patent Office,
Leon F. Douglass
vs.
Thomas H. Macdonald } Intf. No. 20,090.

"Macdonald's Ex. Lyle Letter of Nov. 12, 1898."
Jan. 23, 1900. C. E. D.
N. P.

Columbia Phonograph Company Gen'l.
Sole Sales Agent for the

American Graphophone Company.

Edward D. Easton, President. Long Distance Telephone.
George W. Lyle, Manager. 211 State Street,
CHICAGO, ILLS.

November 16, 1898.

MY DEAR EDWARD:—

I have seen Douglass today, and he does not seem to enthuse as much as I thought he would in connection with the new Graphophone "Grand." He hesitates over the question of not knowing how many machines there will be, nor how long the price will be maintained; but in the meantime, he stated that he had succeeded in making an attachment for the Polyphone to be used on the Graphophone, last night, which he thought was going to fill the bill exactly. He is very enthusiastic on the subject, and says he thinks he can send out from fifty to one hundred machines at once, and that he has now exactly what he wants. I trust this may be so, and that his orders will now begin to come in for Graphophones; for I feel certain that he has been using more phonographs than we realize.

I am trying him hard on the subject of buying records and blanks exclusively from us, and if I make any progress will report at once.

Yours very truly,

GEO. W. LYLE,
Per M. C. Gaston.

E. D. Easton, Esq.,
New York City.

U. S. Patent Office
Leon F. Douglass }
vs. Thomas H. Macdonald } Intf. No. 20,090.

"McDonald Ex. Lyle Letter of Nov. 16, 1898."

Jan. 23, 1900.

C. E. D.
N. P.

Mr. Devine's Mem.

In the U. S. Patent Office
Leon F. Douglass }
vs. Thomas H. Macdonald } Intf. No. 20,090.

"Macdonald Ex. Devine Memorandum Dec. 10, 1899."

Jan. 23, 1900.

C. E. D.
N. P.

Auditorium Hotel
Breslin & Southgate
R. H. Southgate, Manager.

CHICAGO, Dec. 10, 1899.

On the 7th instant I was in the office of *The Talking Machine Company* in this City, when an experiment was made for the purpose of determining as nearly as possible the rate of speed at which a certain sound record introduced in evidence on behalf of Mr. Douglass in the Interference case of *Douglass v. Macdonald* had been made. Other gentlemen present were Mr. Mauro, counsel for Macdonald, Mr. Munday and Mr. Adcock counsel for Douglass, Mr. Babson, Mr. Smith of The Columbia Phonograph Co., Mr. L. F. Douglass

and Mr. Macdonald. The test was made on a Phonograph. Mr. Douglass and Mr. Macdonald regulated the speed of the machine, Mr. Douglass first, Mr. Macdonald later. While Mr. Macdonald was increasing the speed gradually he asked Mr. Douglass what kind of voice the reputed singer of the song "I Love You in the same Old Way," had. Mr. Douglass replied that he thought it was a high tenor. When what seemed the proper speed was reached the song was reproduced. The revolutions of the mandrel were counted by Mr. Munday and Mr. Macdonald. Mr. Munday stated the number as "thirty revolutions in ten seconds"—180 per minute. Mr. Macdonald, who used a stop watch, stated the number as 172 per minute. The record impressed me as a poor one—not at all equal in quality or loudness to an ordinary record of the same song taken from the stock of The Columbia Phonograph Company in Chicago.

ANDREW DEVINE.

Columbia Phonograph Company Gen'l.

Sole Sales Agent for the

American Graphophone Company.

Edward D. Easton, President. Long Distance Telephone.

George W. Lyle, Manager. 211 State Street,
CHICAGO, ILLS.

December 31, 1898.

MY DEAR EDWARD:—

Upon receipt of your favor this morning I called on Mr. Douglass and had quite an interview with him, during which I casually mentioned the fact that we had taken out patents in all the European countries, as well as in Japan, covering the large type of machine; and for the first time since I have talked these matters over with him, I apparently struck a sensitive point for he immediately inquired how we could get patents abroad, and that they were not worth anything, as he himself had made application for a large type machine, over a year ago. I told him I knew nothing about patents anyway; but the chances were that if Mr. Easton or Mr. Mauro said they had them allowed, they were not very far astray.

In the course of the same conversation, he asked me if it would not be possible for our Company to make him up a special type of machine to be used with the Polyphone attachment, he stating that as the machine is constructed at present they have not been able to make a satisfactory attachment so that it would track properly. He says however, that he has a model of a machine prepared, which could be made very cheaply, and if our Company would talk with him about manufacturing, it would probably lead to a large and substantial order. He said he understood that you had the right to use the Edison diaphragm if you desired; but might not be willing to manufacture and sell under your own name, still you might do something along this line for their use. I suggested his corresponding directly with you, and believe it would be well to take this matter up with him direct. He says he does not wish to make them for the Phonograph, but he has a good deal of faith in the Polyphone, and must make it for the machine that will give the best results.

We wind up the month with the day's receipts \$770, making a total for the month of \$28,675, or \$1168 in excess of last December. I wired you last night that we had passed the mark—not with any desire to blow our own horn here, but simply thinking you would not hear from us until Tuesday, (Monday being New Year's Day) and that you would be glad to know at an early date, how we came out.

Wishing you and all at home a bright, prosperous and happy New Year, I remain

Sincerely yours,

E. D. Easton Esq.,
New York City.

GEO. W. LYLE.

U. S. Patent Office.

Leon F. Douglass

vs.

Thomas H. Macdonald

} Intf. No. 20,090.

"Macdonald's Exhibit Lyle Letter of Dec. 31, 1898."

C. E. D.

Jan. 23, 1900.

N. P.

1550

Important.

Do not take these papers apart; return them to the Executive Office with your reply, which should be attached on top. In your reply, and in any future communications connected with this correspondence, mention the reference number.

Reference number 1550.

Subject: Attached letter from Geo. Lyle relative to Douglass and large-cylinder machines.

Referred to Mr. Mauro, for his information.

H. A. BUDLONG,
Executive Officer.

H. A. B. Jan. 15, 1899.

Have written on this subject to Mr. Brown (Poole & Brown) Chicago.

P. MAURO.

Columbia Phonograph Company,
(General.)

Sole Sales Agent for The American Graphophone Company.
Geo. W. Lyle, Manager. Long Distance Telephone.
211 State Street.

CHICAGO, ILL., January 11, '99.

MY DEAR EDWARD:—

I am just in receipt of positive information from our Mr. Henderson that Douglass not only has a large machine, but that he has shown the same. It uses large cylinders, and he claims is arranged for use with Polyphone attachment.

While I have not seen or heard the machine, I would take this information to be positive, as Henderson gave me the name of the party who had heard it.

In the meantime, while I was at Douglass' office yesterday, among other matters he took occasion to refer to several letters which he had written you back in March or April, in which there were marked paragraphs in regard to the use of larger cylinders on machines, and he stated quite boldly that the patent had been taken out in the name of the wrong party. The whole intimation to my mind being that they are fortifying themselves against any trouble that

might arise if our Company had to interfere with their work.

He did not endeavor to explain the fact that these letters were written while he was in the employ of the Graphophone Company, neither did I have any talk whatever on the subject—stating that I knew absolutely nothing about the matter.

I send this off by first mail, so that you may at least be posted on the matter if the information is of any use to you.

Yours very truly,

GEO. W. LYLE.

U. S. Patent Office.

Leon F. Douglass }
vs. } Intf. No. 20,090.
Thomas H. Macdonald }

"Macdonald's Ex. Lyle Letter Jan. 11, 1899."

Jan. 23, 1900.

C. E. D.
N. P.

U. S. Patent Office.

Leon F. Douglass }
vs. } Intf. No. 20,090.
Thomas H. Macdonald }

"Macdonald Ex. Carbon Copy Lyle Letter of March 28, 1899."

Jan. 23, 1900.

C. E. D.
N. P.

March 28, 1899.

MY DEAR EDWARD:—

I have just had a call from Douglass, and he desires me to state that if there is any arrangement by which he could favor our Company in connection with the matter of Graphophone GRAND—this without injuring his rights in the same—he would be pleased to do it; and he says that if you have any suggestions whatever to make he would be pleased to give them his immediate consideration.

I consider this of sufficient importance for me to endeavor to reach you on the 'phone this evening; but if by any means we should not succeed in making connections, trust you will understand what I am driving at. I was quite surprised when Douglass called, as it was entirely voluntary on his part, and he says he does not know just what can be done; but if you and Mauro can think of any way by means of which he can fix matters so the Edison people can be shut off without detriment to his interests, he will be glad to do it.

I have been hoping to hear from you today in connection with the matter, for certainly the Grand business has been hit hard here among our dealers.

Yours very truly,

To Mr. E. D. Easton,
New York City.

"Macdonald's Exhibit Douglass' Letter July 20, 1893."

CHICAGO, July 20, 1893.

MY DEAR MR. EASTON:

This letter will likely wait for you in Washington or I should sent the enclosed check before.

I have been sick and just around again. I was sick in bed at the time I wanted to come and see you so badly.

You were very kind to cut down the price on thoes Graphophones. You have so many surprises in store for me and always pleasant ones that I never know how to thank you or in any way repay you for them. You have so large an account on the credit side that I will never be able to balance my books. I apreccate the kidness lots more than I do \$10.00.

You dont know how glad I am that you are making such a success of the Graphophone Business. I am delighted. I saw a letter from Mr. Bell the other day which said the stock had gone up one cent due he said to you managment of the affairs. I hope it goes to par. You will be in charge of the Phonograph some day I hope.

Everything is runing nicely here and I have arranged for Gray to sell Graphophones for me and am sure orders will

come into you soon. If you will kindly ship machines to him on orders I will be responciable and you will of course recive cash for all the machines. He is not the man to rush the business up much but I will keep it up all possiable till after the Fair and then thier will be changes. Then westerners will see things hum or thier will be a new made grave out west. I am very ancious to see you again before the Fair closes. I want to go to Europe after the Fair and get a rest as I am not well at all I have lost 15 lbs. since you were here and every one thinks am going to die but I am not. thier is not the least danger of that. I wanted to see what you thought of taking the new Graphophone and trying to make expenses for a few months. You know I have no confidence in my own ability but thought perhaps you may be able to sugest some way that it would be possible to do something with it in foreign countries. Dont put yourself to any trouble. I think you told me once that the rights to Europe were sold. In that case what would be the results of trying to sell machines over thier. I hope the sale of the machines will keep right up and you may be sure I will spur Gray up to do all he can out west. I am to pay him \$100.00 per month but it is with the proviso that he must earn it. He will also handel Marine Bands and with instructions to *promote them above all others*. He will get out a catalogue and sell to everyone he can get.

Mr. Tueksbery was here a few days he asked me if I did not want to go with the Kansas Company.

The Midway is taking in about \$50.00 per day I clear up about one third of that amount out of it.

I have written to Mary and send it to the Col. Co. thinking they will forward it as I do not know where she is but suppose at Arcola. I hope you will come out here again before the Fair closes I was so busy at the time you were here I did not half entertain you or Mrs. Easton. Please give my love to her and all the little ones. Best regards to all and Mr. Cromlin.

Yours Always,

(Signed) LEON F. DOUGLASS.

"Macdonald's Exhibit Douglass' Letter, Sept. 26, 1893".

CHICAGO, September 26, 1893.

DEAR MR. EASTON :

I send with this letter two telegrams I sent you today. I bought 100 new Graphophones with recording and reproducing diaphragms I told them I was going to sell them to you if I wanted to. they are to be brand new. I can pick them out for you. I could not get them for less than \$1000.00. he asked me \$20.00 each at first. I dont think it will be necessary unless they would not ship right for me to pick them out. I have that priviledge and can go down for you next month if you wish. I returned a frame work of the Graphophone to the factory today I set and inspector to changing the gear to Phonograph feed and he cracke the frame work please have it fixed and charged to me it is rather hard to change them the pins fit so tight it is most impossible to drive them out I would like to have it returned as soon as possible The Graphoophone will now be far ahead of the Phonograph in display for more people will see the machine in that window than any other place in Chicago. I made some fine records on the New Machine out to Leachmans he is delighted with it. I will come down at anytime next month and pick out thoes frame for you should you want me to. Love to all.

Yours truly (Signed) LEON F. DOUGLASS.

"Macdonald's Exhibit, Douglass' Letter, Mar. 30, 1898.
No. 1."

CHICAGO, ILL., March 30, 1898.

MY DEAR MR. EASTON :

My work is becoming more pleasant every day now, and I find I like it much better than I expected I would now that the work is started the days and nights are not long enough because the work is so interesting and I feal better now that I can let off some of the stored steam only I am so ancious to make everything all at once. I have been testing a new way of making and reproducing records for increasing the volum of tone and the results are very en-

couraging but nothing yet that I can report but we now have our noses to the Grind Stone as Mr. Cromelin calls it and I have great confidence we will accomplish something. Mr. Lyle tells me you had Walcutt up for contempt of court I should think he would know better after the injunction issued. I believe the only one Chicago duplicating is the Western Phonograph Co. shall I go ahead and get up a case against them. I congratulate you on having made contracts with all the singers did I suggest that when I was in New York last I intended to but forgot whether I did or not it may have been old to you. I suggested to Mr. Cromelin while he was here that you buy the Edison Works he said I was about a year behind him in that it would certainly be a fine plan you could then control record making completely, and also the prices or machines. I don't believe it would be necessary to give quite so large discounts. I wrote you today about My Brother handling machines and hope you will tell me any reasons you have against it all. The baby is doing fine. Love to all.

Yours very truly,

(Signed) LEON.

"Macdonald's Exhibit Douglass' Letter, March 30, 1898.
No. 2."

CHICAGO, ILL., March 30th, 1898.

DEAR MR. EASTON:

In regards to the Polyphone, would say, that my only thought is to do something for you. I am sure anything I have ever done has been with this view in mind, and I have never considered the question of how much I was going to get out of it; that has been the last thing in my mind. What I would like to do with this is in the same line, and I hope that the few things I ask will not sound as if I was trying to make bargains for gain for myself. What I would like is this, if I assign the application for a patent to you that you will make the machine inside of one year; put my name in a prominent place so it can easily be seen, and in as large letters as any on the machine. Also give me credit for the machine in all circular matter referring

to the machine and in case I am not in the employ of the Company when the patents run out on the Graphophone that I may have back a license to make the machine myself. I think the machine will be a good thing, and it may control for a good many years after the present patents run out; this has been an interference in the case since I was in New York, but it amounts to nothing in my mind, or the lawyer's opinion, as I promised you. I have let the matter stand still. If, however, these arrangements meet with your approval I am willing to make agreement as above if you are willing to take the chances on getting the patent, that is, give me the credit whether the patent comes out or not, if you would rather wait until the patent is issued before making it, I will, of course, as you wish. If you have any other plan that would suit you better than this just send it along as I said before, as I have only one thought in mind. It ought not to be hard to arrange. You might get up such a contract as would be satisfactory to you, and send it out to me.

With kindest regards,

Yours very truly,

(Signed) LEON.

"Macdonald's Exhibit, Douglass' Letter, July, 5, 1898."
CHICAGO, ILL., July 5, 1898.

DEAR MR. EASTON:

Replying to yours of June 28th, would say that I returned the alternating motor by express to Roschell Park last Saturday. Mr. Lyle went over to the electric house with me and saw the motor working on two style currents. I have tried it on four style currents since it has been here and they all work perfectly. I do not see how there can be anything in your current that would cause the machine not to work. I think that the whole trouble was because the governor ball was off.

In regard to the scheme that Mr. Cromelin saw at my house of two or more diaphragms following the same thread in tandem style, would say that it does not belong to me. The machine he saw belonged to my brother. There

will be some more attachments of this kind fixed up and I will send you one as soon as I can get them. It is an old scheme originated long ago and patented before I went to work for the American Graphophone Co. Of course I will not do any work on it in your Chicago Laboratory, it being entirely outside my work for this Company.

If the alternating current is made at the factory, it can be designed on very similar lines of the present motor for the Graphophone. I could have fixed it up in this way had we built the motor as well as the attachment. This motor I bought on the market and I thought it would be best to make it up as it was and let me see that it worked satisfactory before consuming so much time on the subject. The factory would have no trouble in making up the design from this machine.

I note what you said in regard to it not being necessary for my work to come to you in final shape and no doubt, as you say, no matter how good the work might be, the factory would do all they could to improve or kill it, anyway. I have been considering the question of resigning my position. I would like to talk the matter over with you, and ask your advice about it. Perhaps I can do as much or more to push the talking Machines outside of the Company, as I can by working for you. I shall be glad to talk the matter over with you when you come out again and see what you think about it.

With kindest regards, I remain,

Yours very truly,
(Signed) LEON F. DOUGLASS.

"Macdonald's Exhibit, Douglass' Letter. Nov. 12, 1898."
CHICAGO, November 12, 1898.

E. D. Easton,
New York, N. Y.

MY DEAR MR. EASTON:

Replying to your letter of November 7th and 9th would say that I think it would be best for you to forward the sample machine as soon as it is completed and also make a proposition as to building them and if there is any necessity

for my coming East to arrange details, I shall be very glad to come later.

I am very glad indeed, to note that your model of the Polyphone is so promising and I trust it will be finished in the very near future. I hope if not already shipped that it may be very soon as we cannot do much until have seen the machine. Some of our latest experiments have proved fairly satisfactory and I have the Poly Graphophone here in such shape that it will be used unless we get something better. I am not anxious to fill orders until they are right; I don't want to get a bad reputation by sending out imperfect machines.

As regards to using the attachment on the Graphophone exclusively, would say this naturally depends upon how well yours works and the proposition you make. You however, understand how I feel in regard to this. I have spent \$250.00 in experimental work trying to fix up an attachment to sell such things as I had at command and used up a whole months' time waiting for the results of these experiments, so that it was absolutely necessary that I should do something until a satisfactory Graphophone Model was constructed, and you could let me know what the attachments were going to cost to build.

Mr. Lyle gave me your message in regard to "Jumbo" I told him I should like to have one, but at the price \$250.00, I somewhat hesitated without knowing how long the price is going to be maintained and how many machines are going to be turned out. He said they were going to be turned out by hand and necessarily come out slow, but I told him I did not see any reason why you could not make 25 a day by hand. After the castings are finished, one man could make one a day easily. I have, however, stirred the matter up among likely purchasers and can perhaps sell some anyway. I am however obliged for the opportunity to get one of the first and may decide to do so when I know in regard to the prices and the number there is to be built.

With kindest regards I remain,

Yours truly,
(Signed) LEON F. DOUGLASS.

"Macdonald's Exhibit, Douglass' Letter, Nov. 23, 1896"
Nov. 23, 1896.

MY DEAR MR. EASTON :

Your fine and lovely letter came today and I was delighted again. I will answer that at the office. Mr. Dickinson was also greatly pleased. I wish he would let us settle everything we would do everything so very easily. *I never want to impose.* I think you understand me. I never want anything unreasonable and when I knew I was asking anything of that kind I would quickly cange when you explained. I know you are to kind and generous to be impatient as you have so very often shown. Oh how the business is booming we are just making things hum on the Slot and \$25 machine we are very low on all kinds of machines but I want to get cleaned out and then well put in a nice fresh stock our bank account is way up again just needed a little booming we had only \$126.00 the first of the month and now nearly \$10,000.00 you wont have to wait again I feal sure unless something happens unlooked for. This letter will I fear startle you somewhat for I must confess that I am afraid I am in love and unless the yound lady says no I will soon end this bachalor life. Yes I am going to ask the important question I haven't told Mr. Dickinson yet or any one so you will be the first to know. Of course I want *very* much your kind approval and trust I am asking too much to have you make room for one more in your affections for she knows all about you now. Now you must not laugh at me when I say she is lovely because all lovers say that from the time the world began but I think so. Her name is Victoria Adams she is one fourth Spanish but raised in America in a convent she lives in San Francisco, Cal. I am going to send you her pictures by express as I only have thes two please send them back when Mrs. Easton and Hattie and the children see them. *Please be sure* and send them to my house 94 Cass street as no one at the office knows about them answer this letter to the above address because others besides myself open my mail there. Tell my little Massy that I fear I will have to be a morman to take her too but tell her and Hattie that

they will have to have a new sister and you a new daughter, *because you have always been as kind as a father to me.* Thats why I am going to California again you know I dont want to loose the race and thier is several others in the race one of them a very rich young fellow if he was only in the Phonograph business and I had the graphophone I know we could win the battle. I may not be so successful in this undertaking but I feel sure you will most of all wish me success at least I want you to. with love to all

Yours Always,

(Signed) LEON.

"Macdonald Exhibit Memorandum Graphophone Grand."

Memorandum Graphophone Grand.

On Tuesday, October 18th, 1898, Leon F. Douglass of Chicago, visited the Executive office of the American Graphophone Co., at New York, and its factory at Bridgeport. His principal business in the East at that time was in connection with a device invented by him and called the "Polyphone". This device consists substantially of two reproducers arranged tandem-fashion, the object being to increase to some degree the loudness of reproduction. While at the factory Douglass was permitted to see and hear the Graphophone Grand. He expressed the greatest surprise and amazement at the volume and clearness of the reproductions, and also expressed the fear that, as the Graphophone Grand produced effects far beyond those of the Polyphone the latter would be of no practical value. He did not say or suggest that he had invented or thought of anything of the sort before. On the contrary his words and conduct plainly showed that it was a novelty to him. This took place in the presence of Mr. Thomas H. Macdonald, Mr. E. D. Easton and Mr. Andrew Devine. In the evening of the following day (October 19), Mr. Douglass exhibited his polyphone to Mr. Easton and Mr. Mauro at the Waldorf-Astoria in New York. He then referred to the Grand, and to his surprise at its performance, repeating that he at first thought it was "all up" with the polyphone.

but that on second thoughts he believed there would still be a field for the latter in connection with the ordinary small records, and possibly also in connection with the Grand records.

Mr. Easton has diary records of the above events.

March 1, 1899.

I remember very distinctly the interview with Mr. Douglass on the evening of October 19. The facts are as briefly stated above.

(Signed) PHILIP MAURO.

NEW YORK, *March 1, 1899.*

The foregoing statement of events is correct to my knowledge.

(Signed) E. D. EASTON.

The foregoing statement, so far as it relates to the events of October 18, 1898, is correct to my knowledge.

(Signed) ANDREW DEVINE.

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